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# The Compromise Effect in Market Settings

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The views expressed in this paper are solely those of the author.

The Compromise Effect in Market Settings

A thesis presented by

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In partial fulfillment of the requirements

For the degree of

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### Abstract

The attraction effect and compromise effect are common factors when making choices in one's daily life or in market settings. The problem under investigation was if the compromise effect with more realistic settings would still produce the same results as previous literature suggests (Huber et al., 1982; Huber & Puto, 1983; Sheng, et al., 2005; Simonson, 1989; Simonson & Tversky, 1992) and if the implementation of a "sold out" condition would be an important condition that would influence participant's choices of products. 36 participants were divided into three groups in study 1 (set 1, set 2, set 3 of products). Similarly in the second study, a total of 88 participants were divided into three groups (dual product condition, compromise condition, and sold out condition). In study 1, the compromise effect was evident with more realistic settings. The findings of study 2 showed that in the sold out condition, participants chose the lesser quality products. The results of both studies allow marketers and consumers to strategize their decisions when buying or selling products.

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### The Compromise Effect in Market Settings

In today's market, consumers are overwhelmed with a variety of choices, and a single product (e.g. water bottle, speaker, pencil) may be distributed by a plethora of companies around the world. According to standard economics, more choices create competition, which should provide decreased prices for consumers; however, although prices are decreasing, which is beneficial for the consumer, buyers may become overwhelmed by too many options. Defined as the set of alternatives, the context of the set influences consumer choice. To remedy the dilemma of too many choices, consumers may develop shortcuts or heuristics to help them choose among products. One of the shortcuts is to compromise among the many products by choosing the middle or close-to-middle product due to uncertainty of what product will provide the best value (Tversky, 1988).

One of the main objectives of the study of consumer decision making was to understand the choices individuals make during times of uncertainty. Previous research (Tversky, 1988) had shown individual choices under preference uncertainty can be further researched when strategies of the decisions of consuming a product are analyzed. In other words, research about how consumers make decisions are important to their choice preference. Individuals have difficulty with choices and with which option provides the best value/utility to them. The consumers' final decision choosing a product is based on reasoning and personal preferences.

Prior to the research of Simonson (1989), a focus on the alternatives influencing the individual's final choice (Montgomery, 1983; Tversky, 1972) was infrequently emphasized. As Simonson (1989) states, for research to be effective, there are two conditions that must be fulfilled. The first is the choice problem must be simple enough for the analysis of how the alternatives influence the individual. Second, the individual who is making the decision should

have difficulty choosing within a choice set based on attribute and value. The reasons to choose the particular option should not make it too easy.

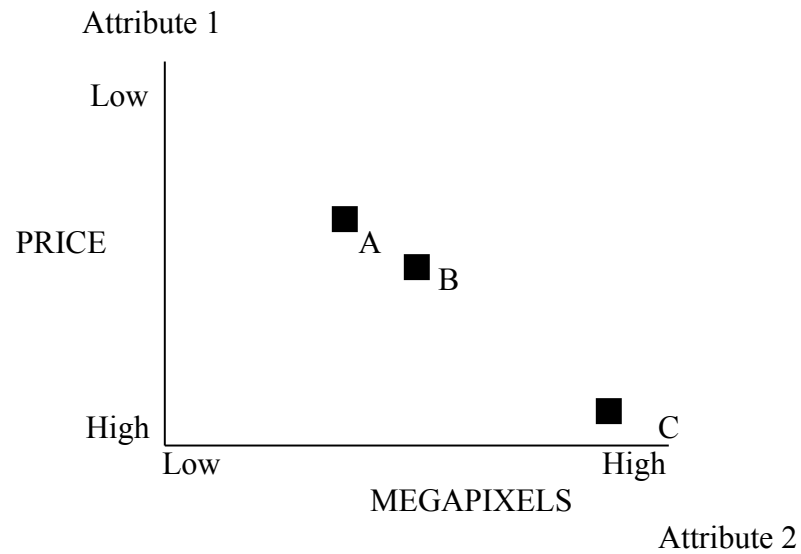
### **Attraction Effect**

Although it is difficult to determine what reasons explain choice behavior under uncertainty, examining the outcome of consumers' choice is extremely useful. The attraction effect (Huber, Payne, & Puto, 1982; Huber & Puto, 1983) shows that if a dominated or relatively inferior alternative is added to a set of choices, the probability of the dominated alternative increases [A and B are the two products but if B' (inferior) is added into the choice set which is not as good as B, B is more likely to be chosen]. For example if two pairs of different sunglasses were being compared, option A and option B, then consumers can base decisions on which attributes are more important to them; however, if a third brand of sunglasses (option C) were brought into the comparison that was more like option B but still inferior, then option B is more likely to be chosen. One of the main criticisms of the attraction effect has been that it is too simple and does not explain enough behavior and selection, thus the compromise effect was developed to enhance the attraction effect. The compromise effect shows by introducing another product into a choice set, it would gain more attention (market share) when it becomes the middle option (the compromise product), between the two original products.

### **Compromise Effect**

The compromise effect stems from the attraction effect. In Figure 1, a visual representation of a kind of compromise effect (a true compromise effect will be discussed later) is shown. The core set (brands A and B) is shown and brand C, a third brand that is introduced into the choice set, which is not inferior to B, should increase the probability (market share) of B being chosen because it is the compromise between A and C. This argument leads to the





*Figure 1.* A compromise effect. The addition of product C, a distant competitor (high price + high megapixels) makes B, the compromise alternative, more attractive.

prediction of how the middle alternative would gain market share relative to the other alternatives in the choice set (Simonson, 1989). Simonson (1989) tested a hypothesis regarding the compromise effect with products including TVs, apartments, calculators, etc. and found the probability of the alternative choice (middle option) increases in the choice set. The market share of each product was 17.5% larger when the product was the compromise than if it not.

### **Factors influencing choice**

As mentioned above, when making a choice, people select a product that they believe has the highest value while knowing that each other alternative choice has its own utility and value. Simonson and Tversky (1992) state this process of thinking as value maximization (VM). One of the major implications of VM is within a choice set, the preferences between alternatives are independent of the context. For example, if product A is preferred to product B in one context, then product B cannot be preferred to A in another context, even if a third product were introduced into the choice set. VM describes standard economic theory of rational choices; however, studies have contradicted VM and have shown consumers are influenced by the context of choice (Payne, Bettman, & Johnson, 1992). One of the findings of Payne, Bettman and Johnson (1992) was a brand's value is increased when a new brand is introduced into the market. One would think the value would decrease due to rational economic reasons--with more competition, prices decrease because there are more choices to choose from, and there is thus more incentive to move toward another cheaper brand. In actuality, when more brands were introduced, there are more choices to choose from, which allows consumers' to choose a product with attributes that they prefer. The findings in the study may influence competitive market strategies, communications, and positioning for marketers (Simonson & Tversky, 1992).

The previous studies have all mentioned the word "context" or the phrase "context

effects.” More description of the phrase is needed to understand the true meaning of a context.

Within context effects, there are two principles that describe the context of choice. One is called tradeoff contrasts. Contrast occurs everywhere when perceiving and judging. For example, a circle seems large when surrounded by small circles and small when surrounded by larger circles. The effect of contrast, such as size, is also used when comparing attributes and thus there is a tradeoff contrast. Simonson and Tversky (1992) give an example of a choice between computer X and Y. X has 960K of memory for \$1200 whereas the other has 640K of memory for \$1000. The choice is whether to pay \$200 extra for 320K of memory and the tradeoff contrast hypothesis predicts product X will be chosen if the choice set has pairs of options where the cost of additional memory is greater than that implied by the comparison between X and Y (Simonson & Tversky, 1992).

The second principle that describes context effect is called extremeness aversion. Extremeness aversion relates to loss aversion, which explains the endowment effect (Kahneman, Knetsch, & Thaler, 1991; Tversky & Kahneman, 1991; Chang & Liu, 2008). Loss aversion occurs when losses, outcomes that are below a reference point, are weighted heavier than are gains, outcomes that are above the reference point. The endowment effect states starting from a reference point, losses are weighted more than are gains. Simon and Tversky (1992) give an example using VCRs. Product X has the highest quality and price, product Z has the lowest quality and price, and product Y is the median between the two. Extremeness aversion hypothesis predicts that Y will be chosen because product Y has only small disadvantages compared to products X and Z. Product Y is the middle, and is a compromise among the products. With Product X being the highest and Product Z being the lowest, Product Y is the compromise and is the “medium” product. The middle option seems to be better in the triple than

in pairs. Their findings suggest extremeness aversion operates only for quality and not for prices.

Attraction and compromise effects as well as decision contexts influence consumer preferences in a choice set. Context effects have shown that when comparing alternatives, individuals consider other characteristics rather than only solely the features of the main alternative of interest. This consideration of other characteristics complicates the decision making process and thus is hard to analyze. Not only are context effects at times complicated to research, but there has also been a lack of research toward compromise effects. As previously mentioned, the compromise effect stems from the attraction effect. There has been a lack of research of the compromise effect because some researchers categorize the compromise effect as a special case of the attraction effect (Sheng, Parker, & Nakamoto, 2005); however, Sheng, et al. (2005) specifically tested the compromise effect while also making a better distinction between the attraction effect and the compromise effect.

### **Distinction between attraction and compromise effects**

The attraction effect occurs when a dominated alternative is put into a choice set, increases in the likelihood that an existing alternative will be chosen (Huber et al., 1982; Huber & Puto, 1983; Sheng, et al., 2005; Simonson, 1989; Simonson & Tversky, 1992). It should be noted that the compromise effect is different than the attraction effect because in the compromise effect, the added product is not dominated. The new added product may have positive and negative effects on the pre-existing options, making the new product a compromise among the products (Sheng, et al., 2005). With both attraction and compromise effects dealing with a third alternative in a two-alternative choice set and the increase of the market share of the main alternative in both effects, the attraction and compromise effects have been lumped together in certain experiments (Lehmann & Pan, 1994; Pan & Lehmann, 1993).

When using the compromise effect, consumers try to maximize the expected gain while trying to minimize expected losses. Risk is linked to expected losses within the consumer decision and relates to prospect theory. In prospect theory, individuals start off with a reference point and experiences a loss if an outcome falls below a reference point (Kahneman & Tversky, 1979). People tend to prefer to avoid losses than to acquire gains, which is the theory of loss aversion. Consumers do not want to choose an option that they may later feel regret. Consumers may use a reference point when purchasing an object and at the same time, the choice of a reference point may be influenced by previous experience due to the factor of regret theory (Loomes & Sugden, 1982). The regret theory says the pleasure of having a consequence of one choice depends on the outcome of the choice as well as the potential outcome of the other choices. In other words, if one of the other choices has a higher value than does the main choice, the consumer may have regret. Using the ideas of prospect theory and regret theory to describe the compromise effect, Sheng, et al. (2005) hypothesized that when individuals have a high uncertainty, the more likely he/she is to take the compromise option in the choice set. An example of a consumer item used in the study was a lawnmower with the warranty and horsepower as the two attributes. When deciding to purchase a lawnmower, consumers may not know enough information about the product itself as well as its attributes and to minimize regret theory and loss aversion, the consumer may choose the middle option, because it is the safest of among the three products (i.e., the compromise effect). The results were significant and in line with their hypothesis. The compromise effect was evident in consumer decisions.

### **Manipulations of the Compromise Effect**

A variety of manipulations of the compromise effect have been studied in more recent years. Sinn, Milberg, Epstein, and Goodstein (2007) developed a study to compare familiar

brands with unfamiliar ones. The findings of Sinn et al., (2007) were consistent with Sheng et al (2005). In both studies, uncertainty was an important factor in determining a compromise effect among participants, regardless of prior knowledge of the product itself, or a brand of a product.

Dhar and Simonson (2003) allowed the option of “no choice” to participants while making their choice. With the “no choice” option, it strengthened the attraction effect (Huber et al., 1982), but at the same time weakened the compromise effect (Simonson, 1989). Their findings were consistent with notion that the no choice option provides an alternative choice when participants are forced to choose. Dhar and Simonson’s (2003) study provided strong market implications in today’s society. With so many options to choose from, rarely are consumers allowed to not choose an option in the midst of thousands of choices. Consumers may become mentally stressed and confused and need a no choice option so easy their mental stress.

Chang and Liu (2008) developed three studies to expand the literature of the compromise effect. One study that was developed was based on the information format hypothesis. The information format hypothesis (Bettman & Kakkar, 1977; Biehal & Chakravarti, 1982) explains the way in which information is processed. When displaying the information, the information focuses on three characteristics: (1) the form of how the individual items are presented (i.e., numerical, verbal, or pictorial); (2) the organization of how the items are displayed (e.g., table, matrix, list, etc.); and (3) the sequence of individual items (Kleinmuntz & Schkade, 1993; Schkade & Kleinmuntz, 1994). Unlike previous studies of information format, Chang and Liu (2008) show how manipulating the format of the information can make the compromise effect operate in different ways under certain circumstances.

Chang and Liu (2008) conducted two important studies relating to the compromise effect. The first important study Chang and Liu (2008) tested involved two different information

formats, joint and separate. Appearing in a tabular display, the joint condition was shown in an information display board (IDB) format (see Figure 2a). The separate condition (see Figure 2b) displayed information about each product on three separate pages (each product had its own separate page). The three hypotheses of the second study were: 1). In the joint condition, the middle option would be more likely to be chosen than in the separate condition (H2a), 2). The middle option (the second task page) in the separate condition would be chosen more often than if it did not appear in the second task page (H2b), and 3). The middle option would be more likely to be chosen when it appears as the middle option in the joint condition than when it does not (H2c).

As shown in Table 1, the chosen options for the six products display that the middle option was more frequently selected in the joint condition than in the separate condition when pooled together (49% vs. 39%). A comparison between compatible and incompatible patterns was also examined. Interestingly, even in the separate condition the middle option is chosen more often when it is displayed on the second task page compared to when it is not (the same result occurred in the joint condition for five of the six products). The pooled data in the separate condition between the compatible pattern and the incompatible pattern (or in other words, when the middle option appears on the second task page compared to when it does not) was 46% vs. 35%, respectfully. In the joint condition, when the middle option is presented in the middle position or not, the percentages were 54% vs. 47%, respectfully.

In the study (Chang & Liu, 2008) the relative share of the middle option in the joint condition increased compared to the separate condition. For marketing strategies when a product is being sold, not only should the focal product be the middle option (Study 1 of Chang & Liu, 2008), but also it is important to use some kind of joint presentation. Furthermore, when using a

A. Joint Format			B. Separate Format			
Instruction about the task			First page	Instruction about the task		
Option	Quality	Reliability	First task page	Option	Quality	Reliability
T	50	50		T	50	50
X	60	40	Second task page	Option	Quality	Reliability
M	70	30		X	60	40
			Third task page	Option	Quality	Reliability
				M	70	30

Figure 2. Different information displays: Joint vs. separate format (from Chang & Liu, 2008)



Table 1

*Compatibility Effect of Information Formats (Joint/Separate) on Compromise Choice<sup>1</sup>*

Product	Joint Condition ( $N = 106$ )			Separate Condition ( $N = 105$ )		
	X	X (Compatible Pattern)	X (Incompatible Pattern)	X	X (Compatible Pattern)	X (Incompatible Pattern)
Camera	39%	56%	33%	35%	38%	33%
Portable grill	60%	62%	59%	44%	56%	40%
Printer	53%	56%	51%	41%	46%	38%
Binoculars	52%	63%	48%	42%	44%	41%
Cordless phone	47%	49%	46%	30%	40%	26%
Calculator	43%	38%	46%	40%	53%	32%
Pooled data	49%	54%	47%	39%	46%	35%

*Note:* Percentages denote the relative share of the middle option for each condition.

<sup>1</sup>From Chang & Liu, 2008

pattern that includes a joint presentation, a compatible pattern will be more effective than will an incompatible pattern. When comparing products, the marketing strategy should be to arrange the focal brand in the middle and display the information about the other products on the same page.

The second study by Chang and Liu (2008) focused on using the format of the information. Three different information formats, information display board (IDB), lists organized by alternative (LIAL), and lists organized by attribute (LIAT) were used in a joint condition to test which information format was the most effective (see Figure 3). In the IDB format, information is displayed in a tabular display and the rows correspond to the products whereas the columns correspond to the attributes. In the LIAL format, the information is stated by the alternatives and displayed according to the attributes. Bettman and Kakkar (1977) believed when information processing is used in brand-based information (LIAL), participants process information by brand. When information processing is used in attribute-based information (LIAT), participants process the information by attribute. The IDB, LIAL, and LIAT formats were also used in a study by Schekade and Kleinmütz (1994).

Shown in Table 2 [from Chang and Liu (2008)], the relative share of the middle option was highest in the IDB format, followed by the LIAT format, and then the LIAL format. Looking at cameras, the relative share of the LIAT format increases from 50% to 61% in the IDB condition; however, selection in the IDB condition decreases to 27% from the LIAL condition. Other products had the same results. The pooled data across products also follows the pattern of IDB having the greatest percentage of the relative share data, then LIAT, and then LIAL (53% vs. 44% vs. 31% respectively). When looking at the LIAL and LIAT condition, the middle option increases more when the pattern is compatible than when it is not (5 of 6 products). Compatibility occurs when the intended product is placed in the middle, it gain a greater market

A. IDB Organized	B. Lists Organized by Alternative (LIAL)	C. Lists Organized by Attribute (LIAT)												
<table border="1"> <tr> <th>Option</th><th>Quality</th><th>Reliability</th></tr> <tr> <td>T</td><td>50</td><td>50</td></tr> <tr> <td>X</td><td>60</td><td>40</td></tr> <tr> <td>M</td><td>70</td><td>30</td></tr> </table>	Option	Quality	Reliability	T	50	50	X	60	40	M	70	30	<p>Option T: The quality is rated 50 and the reliability is rated 50.</p> <p>Option X: The quality is rated 60 and the reliability is rated 40.</p> <p>Option M: The quality is rated 70 and the reliability is rated 30.</p>	<p>Quality: Option T is rated 50, option X is rated 60, and option M is rated 70.</p> <p>Reliability: Option T is rated 50, option X is rated 40, and option M is rated 30.</p>
Option	Quality	Reliability												
T	50	50												
X	60	40												
M	70	30												

*Figure 3.* Different information displays (from Chang & Liu, 2008)

Table 2

*Compatibility of the Information Format (IDB/LIAL/LIAT)*<sup>1</sup>

Product	IDB (N = 49)			LIAL (N = 62)			LIAT (N = 56)		
	X	X (Compatible Pattern)	X (Incompatible Pattern)	X	X (Compatible Pattern)	X (Incompatible Pattern)	X	X (Compatible Pattern)	X (Incompatible Pattern)
Camera	61%	61%	61%	27%	10%	35%	50%	60%	46%
Portable grill	53%	50%	54%	38%	43%	35%	39%	48%	34%
Printer	57%	47%	62%	32%	43%	26%	54%	62%	49%
Binoculars	53%	75%	42%	33%	60%	20%	38%	55%	28%
Cordless phone	45%	44%	45%	28%	42%	22%	39%	60%	28%
Calculator	47%	47%	47%	28%	35%	26%	43%	47%	41%
Pooled [T,X,M]		53%			45%			55%	
Data [M,X,T]		55%			33%			55%	
Sum	53%	54%	52%	31%	39%	27%	44%	55%	38%

Note: Percentages denote the relative share of the middle option for each condition.

<sup>1</sup>From Chang & Liu, 2008

share. Regarding the pooling data also in the LIAL and LIAT conditions, the relative share of the middle option is greater when in the middle position than when it is not (55% vs. 38%- LIAL, 39% vs. 27%- LIAT).

In the IDB condition, the share of the middle option increased when it was shown in the middle position relative to when it is not is only evident in three of the six product categories. Interestingly, the results in Study 3 conflict with the results of the joint condition in Study 2.

The results of Study 3 imply that when selling a product, the middle option should be compared with competitors' brands using a compatible pattern. Also, the information should use an IDB format as opposed to a LIAL or LIAT format.

With the three studies conducted, Chang and Liu (2008) have made an important contribution to the basic understanding of the compromise effect. The information format of products does influence consumers' choices. The first study supports that the middle option in a middle position is more attractive than when it is not, whereas the second study shows that the middle option is more attractive in a joint rather than separate condition. Another interesting point is that even in the separate condition, the relative share of the middle option is greater when the middle option appears on the second task page than when it does not at all. In the third study, compared to the LIAL and LIAT format, the IDB format has a greater relative share. Moreover, the LIAT format has a greater relative share percentage compared to the LIAL format. In marketing practices, marketers should place their product in the middle using a joint display with competitors' products. Also the format should be a table (IDB) as opposed to LIAL or LIAT.

Based on the previous studies mentioned, an experiment of different variations of the compromise effect is beneficial. The basic format of the compromise effect is a three-product choice, with the middle option being chosen under uncertainty. Manipulations of the compromise

effect would influence how retailers present their products, and how the retailers would influence consumers to purchase the intended product that the retailers have in mind. In this study, the compromise effect is taken a step further by making the one of the three items presented sold out.

### **Compromise study**

Based on the previous studies mentioned, an experiment of different variations of the compromise effect was beneficial. A full effect of the compromise effect entailed realistic attributes when compared, as well as the compromise option truly being the middle option (evenly spaced between A and C in Figure 1). Quality and prices were modified from actual products. Also, different from the standard three products, five were used (Products A, B, C, D, and E). There were three groups- ABC was compared first, then BCD, and then finally CDE. The manufacturers and appearance of the products remained the same for all products and provided consistency. The hypothesis was that the middle option would be chosen in all three conditions.

### **“SOLD OUT” study**

A regular compromise effect would predict the middle option being chosen. The compromise effect was displayed due to uncertainty, but with a “sold out” example (see Appendix E), the products were chosen for other reasons that were investigated. To show this effect, for each product there were three main surveys, two of which had two kinds of surveys. In each of the three main surveys, three products were used, but in two of the surveys there were subsequent manipulations.

The first survey consisted of two products (a 50/50 split) and had two kinds of surveys. The first survey used all three products, but two were shown at a time. The first kind of consisted of only products A and B (see Appendix C, Appendix J, Appendix Q, etc.) while the second kind

of survey consisted of only product B and C (see Appendix D, Appendix K, Appendix R, etc.) This was done to provide a constant variable when comparing the sold out survey and its different manipulations. The second survey had three products, with its respective attributes evenly spaced (a 33.3% split among products.) This was the traditional compromise effect (see Appendix E, Appendix L, Appendix S, etc.) A third survey with one of the three products having the words “SOLD OUT” over the product (intended to be a 33.3% split among products, but with the sold out option, the products become a 50/50 split) (see Appendix F, Appendix G, Appendix H, etc.) The hypothesis was that in the third survey, people were more likely to choose Option B due to the anchor or attraction of Option C being sold out. If Option A was sold out, it was hypothesized that the results would be close to a 50/50 split between Option B and C. If Option B was sold out, then it was hypothesized that participant chose Option A or C based on their preferences of the attributes, but the results more or less like the first survey (a 50/50 split). As mentioned before, the first and the third survey and its subsequent surveys were matched accordingly and compared due to both a 50/50 choice.

The manufacturers and appearances of the products remained the same for all products, which provided consistency. The other surveys were used to compare with the third survey to show how the “sold out” option affects choice. The current study set up a more realistic visual setting for consumers to see and had evenly spaced attributes among products, which contributed to the past literature of the compromise effect where products were in a less realistic set up and attributes were not evenly spaced among products.

### **Experiment 1**

This experiment follows previous literature to test the compromise effect. Multiple products were used to show the effect and more realistic settings were used- including pictures of

the actual product and realistic attributes. Even spacing between within product choices were also used to control for the differences within product choices.

## **Method**

### **Participants**

The participants were Connecticut College students enrolled in Psychology 101 or 102. Both men and women, aged from 18-21 participated in the study. Participants for this experiment were randomly divided into three groups and received a survey. There were three different surveys to accommodate for the three separate sets of products shown.

### **Measures**

All surveys were administered through Qualtrics, an online survey system which had been used by psychology researchers at a number of institutions. The experiment consisted of administering three surveys to each of the three groups for six individual products (see Appendix A). The first survey contained questions adapted from Sheng, et al. (2005) to assess familiarity with the products and knowledge of the attributes using a one to seven (one being strongly disagree and seven being strongly agree) Likert Scale.

The second survey (see Appendix B) was then administered containing questions adapted from Jaccard, Brinberg, and Ackerman (1986) to assess the value of the attributes using a zero (not at all important) to 10 (very important) rating scale.

The third survey had three different versions for each respective group (there were three groups) for each individual product. The products were divided so the participants of the study encountered all six products, but only one of three versions of the survey. For example for the camera product, Group 1, Group 2, and Group 3 received a survey (see Appendix C, D, E respectfully) and chose among three different cameras. The three groups then received a survey



for a different product (e.g., a Television), which was also different among the three groups. Each of the three groups had its own individual survey packets and all consisted of six products. Among the three groups, the products themselves were each manufactured by individual companies to provide consistency and focus on the attributes. The attributes were adapted and then modified from the website “price grabber” to make them more valid, representing actual product prices and attributes.

After each product, another survey was administered as a follow up to the specific product (in the case of cameras, see Appendix F) and was adapted from Sheng, et al. (2005); the survey consisted of eight questions. The questions used a 9-point Likert scale anchored by “strongly disagree” to “strongly agree” to assess consumer decision uncertainty, including participant inadequacy of information, product uncertainty, prediction uncertainty, and justifiability. Participants filled out the survey immediately after choosing the product that provides the best value to them.

The final measure was a demographic survey (see Appendix AA) adapted from the United States 2000 census. The questions provide basic background information on the participants.

### **Procedure**

The experiment was conducted at Connecticut College using the participant pool from introductory psychology courses. After writing their e mail address and sorted randomly to be put into one of the three groups, students were sent a link online, respective to the group into which they were placed in. Every participant completed a consent form (see Appendix BB) before beginning the experiment. Participants received one of the three online surveys. Regardless of which survey the participants received, they were first told to evaluate how

familiar they were with the product, how knowledgeable they were about the attributes, and how valuable each attribute was to them. Next, participants received a second survey and chose what product provided the best value to them based on the information provided by the survey. After the participants finished choosing among the products, they were asked to answer another survey that evaluated consumer decision uncertainty. The final section of the survey gathered information on the demographics of the individual. When participants finished the experiment, they concluded their participation in the study and were subsequently given a debriefing form (see Appendix CC).

### **Results and Discussion**

Table 3 shows the participants' choices for each product as a function of the choice location on the left, in the middle, and on the right. The data were analyzed using a Chi squared Goodness of Fit test. The null hypothesis was that the three positions (left, middle, and right) would be equally likely to be chosen and no bias toward a position would be shown. Televisions, Vacuums, and Lawn Mowers were all statistically significant (see Table 3); however, Lawn Mowers were the product that was significant following the pattern of the compromise effect. Televisions and Vacuums were significant due to a bias in one direction. Summing the results of all the products (the totals of each of the chosen positions of the six products combined), there was a significant difference and results of the followed the pattern of a compromise effect- the middle product was chosen more often than the left or right products.

In Table 4, the three product sets are summed across all products and participant's choices are shown as a function of location: left, middle, or right. As in Table 3, data were analyzed using a Chi squared Goodness of Fit test with a null hypothesis that the three positions would be even and no bias toward a position would be shown. All three showed patterns of the

Table 3

*Study 1 Compromise Effect Position*

Product	Product Position			$\chi^2$ *	P value
	Left	Middle	Right		
Digital Camera	11	14	11	.500	.779
TV	5	15	16	6.17	.046
Binoculars	14	13	9	1.17	.558
Vacuum	17	17	2	12.5	.002
External Hard Drive	8	14	14	2.00	.368
Lawn Mower	9	22	9	13.17	.001
Total	64	95	57	11.36	.003

\*d.f. = 2

Table 4

*Study 1 Compromise Effect- Product sets across all products*

Set	Product Position			$\chi^2$ *	P value
	Left	Middle	Right		
Set 1 (A, B, C)	25	31	21	1.97	.373
Set 2 (B, C, D)	15	29	14	7.28	.026
Set 3 (C, D, E)	24	35	22	3.63	.163
Total	64	95	57	11.36	.003

\*d.f. = 2

compromise effect, but only set 2 was statistically significant. The totals of all positions of the products, as in Table 3, were significant and showed a compromise effect.

To evaluate the null hypothesis that there would be no bias towards a product, a one-way within participants multivariate analysis of variance (MANOVA) was conducted across all six products on the variables familiarity, knowledge of attribute 1, knowledge of attribute 2, value of attribute 1, and value of attribute 2. The effect of the products was significant, Wilks Lamda = .066,  $f(25,11) = 6.27$ ,  $p = .001$ , partial eta squared = .93. Univariate analyses of variance (ANOVA) was conducted on each dependent variable and each variable was significant (see Table 5). Tukey post hoc tests on the mean scores show that when looking at the familiarity of products, digital cameras and televisions were most familiar compared to other products (see Table 6). For the knowledge of Attribute 1 for televisions, Tukey tests revealed it was significant when compared to other products (see Table 7). Knowledge of Attribute 2 for lawn mowers compared to other products was significant (see Table 8). Compared to other products, vacuums for attribute 1 were statistically significant (see Table 9), and for Attribute 2, the value of lawn mowers was statically significant (see Table 10).

Following the pattern of previous literature, the compromise effect was shown to be evident in the experiment. Even with the implementation of a more realistic setting, controlling for variables including even spacing of price and other attributes, and showing realistic pictures, the compromise effect was still evident. This study demonstrates that the compromise effect is not strong unless sufficient numbers of participants and the right kinds of products are used.

## **Experiment 2**

This experiment followed previous literature of the compromise effect and adds the words “sold out” over one of the three choice of the products. Multiple products were used to

Table 5

*Study 1 of Compromise Effect*

Variable	Product						F	P value
	Digital Cameras	TV	Binoculars	Vacuum	Hard Drive	Lawn Mower		
Familiarity								
<i>M</i>	5.58	5.72	4.44	4.67	5.00	4.17	8.38 <sup>a</sup>	< .001
<i>SD</i>	1.52	1.34	1.76	1.74	1.62	1.90		
Knowledge 1								
<i>M</i>	4.78	5.56	4.14	4.03	3.89	3.28	12.84 <sup>a</sup>	< .001
<i>SD</i>	1.48	1.21	1.50	1.89	1.58	1.91		
Knowledge 2								
<i>M</i>	4.39	4.78	2.56	2.42	4.56	3.06	26.89 <sup>a</sup>	< .001
<i>SD</i>	1.66	1.53	1.08	1.46	1.75	1.87		
Value 1								
<i>M</i>	8.50	8.78	8.44	6.56	9.58	7.56	12.25 <sup>b</sup>	< .001
<i>SD</i>	1.95	1.53	2.26	2.48	1.56	2.16		
Value 2								
<i>M</i>	8.92	8.78	8.17	7.64	8.33	7.00	5.85 <sup>c</sup>	.001
<i>SD</i>	1.65	1.78	2.52	2.27	2.08	2.11		

<sup>a</sup> d.f. = 5, 175<sup>b</sup> Greenhouse-Geisser, d.f. = 3.84, 134.48<sup>c</sup> Greenhouse-Geisser, d.f. = 3.34, 117.02

Table 6

*Study 1 Means and Standard Deviations of Familiarity of products and results of Tukey HSD tests. (N=36)*

Item	$M^a$	SD	Item Number					
			1	2	3	4	5	6
1. Digital Cameras	5.58	1.52			**	*		**
2. Televisions	5.72	1.34			**	**		**
3. Binoculars	4.44	1.76						
4. Vacuums	4.67	1.74						
5. Portable External Hard Drive	5.00	1.62						
6. Lawn Mowers	4.17	1.90						

\*Significant differences in mean ratings ( $p < .05$ ) are marked with an asterisk.

\*\*Significant differences in mean ratings ( $p < .01$ ) are marked with two asterisks.

<sup>a</sup>Ratings were from 1, strongly disagree, to 7, strongly agree.

Table 7

*Study 1 Means and Standard Deviations of Knowledge of Attribute 1 of products and results of Tukey HSD tests. (N=36)*

Item	$M^a$	$SD$	Item Number					
			1	2	3	4	5	6
1. Digital Cameras	4.78	1.48						**
2. Televisions	5.56	1.21			**	**	**	**
3. Binoculars	4.14	1.50						
4. Vacuums	4.03	1.89						
5. Portable External Hard Drive	3.89	1.58						
6. Lawn Mowers	3.28	1.91						

\*\*Significant differences in mean ratings ( $p < .01$ ) are marked with two asterisks.

<sup>a</sup>Ratings were from 1, strongly disagree, to 7, strongly agree.



Table 8

*Study 1 Means and Standard Deviations of Knowledge of Attribute 2 of products and results of Tukey HSD tests. (N=36)*

Item	$M^a$	$SD$	Item Number					
			1	2	3	4	5	6
1. Digital Cameras	4.39	1.66		**	**			**
2. Televisions	4.78	1.53			**	**		**
3. Binoculars	2.56	1.08					**	
4. Vacuums	2.42	1.46					**	
5. Portable External Hard Drive	4.56	1.75						**
6. Lawn Mowers	3.06	1.87						

\*\*Significant differences in mean ratings ( $p < .01$ ) are marked with two asterisks.

<sup>a</sup>Ratings were from 1, strongly disagree, to 7, strongly agree.

Table 9

*Study 1 Means and Standard Deviations of Value of Attribute 1 of products and results of Tukey HSD tests. (N=36)*

Item	$M^a$	SD	Item Number					
			1	2	3	4	5	6
1. Digital Cameras	8.50	1.95				**		
2. Televisions	8.78	1.53				**		
3. Binoculars	8.44	2.56				**		
4. Vacuums	6.56	2.48					**	
5. Portable External Hard Drive	9.58	1.56						**
6. Lawn Mowers	7.56	2.16						

\*\*Significant differences in mean ratings ( $p < .01$ ) are marked with two asterisks.

<sup>a</sup>Ratings were from 1, not important, to 10, very important.

Table 10

*Study 1 Means and Standard Deviations of Value of Attribute 2 of products and results of Tukey HSD tests. (N=36)*

Item	$M^a$	$SD$	Item Number					
			1	2	3	4	5	6
1. Digital Cameras	8.92	1.65				*		**
2. Televisions	8.78	1.78						**
3. Binoculars	8.17	2.52						
4. Vacuums	7.64	2.27						
5. Portable External Hard Drive	8.33	2.08						*
6. Lawn Mowers	7.00	2.11						

\*Significant differences in mean ratings ( $p < .05$ ) are marked with an asterisk.

\*\*Significant differences in mean ratings ( $p < .01$ ) are marked with two asterisks.

<sup>a</sup>Ratings were from 1, not important, to 10, very important.

show the compromise effect and more realistic settings were used as in Experiment 1- including pictures of the actual product and realistic attributes. As in Experiment 1, even spacing within product choices were also used to control for the differences within product choices. Four new products were added, but one (blenders) was removed due to a technological error of the survey online. Nine products were used.

## **Method**

### **Participants**

The participants were Connecticut College students enrolled in Psychology 101 or 102 and other participants who signed up at the college's library. Both men and women, aged from 18-21 participated in the study. Participants for this experiment were randomly divided into three groups and received a survey. Participants were randomly placed into the "Dual Product" group, the "Compromise" group, or in the "Sold Out" group.

### **Measures**

The experiment consisted of administering three surveys to each of the three groups for ten individual products (see Appendix DD). The first survey contained questions adapted from Sheng, et al. (2005) to assess familiarity with the products and knowledge of the attributes using a one to seven (one being strongly disagree and seven being strongly agree) Likert Scale.

The second survey (see Appendix EE) was then administered containing questions adapted from Jaccard, Brinberg, and Ackerman (1986) to assess the value of the attributes using a zero (not at all important) to 10 (very important) rating scale.

The participants were then randomized into three different groups where each group had different versions of the final survey. Each participant encountered all ten items (Cameras, Binoculars, etc.). Participants in Group 1 were shown surveys with two products during the

duration of the study. They then chose the product that provides the best value to them for each individual item. Although there were three products used (A, B, and C) with different attributes, only two products were shown at a time to Group 1 (A and B, B and C). For example, a participant in Group 1 may have encountered the products displayed in Appendix FF or GG when taking the survey. Then when moving to choose between TVs, they may have encountered the products displayed in Appendix MM or NN and so on and so forth for the rest of the products.

Participants randomized into Group 2 were shown surveys with three products. They then chose the product that provides the best value to them for each individual item (in the case of cameras, see Appendix HH).

Participants randomized into Group 3 were shown surveys with three products, but with the words “SOLD OUT” over one of the three products (in the case of cameras, see Appendix II, JJ, and KK). The “SOLD OUT” label removed the product as an option and left two remaining choices. The “SOLD OUT” product rotated among the three products for each item (“sold out” was written over either the left, middle, or right product). They then chose the product that provided the best value to them for each individual item, given that the “SOLD OUT” product was no longer available.

Among the three groups, the products themselves were each manufactured by individual companies to provide consistency and focus on the attributes. The attributes were adapted and then modified from the website “price grabber” ([www.pricegrabber.com](http://www.pricegrabber.com)) to make them more valid, representing actual product prices and attributes.

After each product, another survey was administered as a follow up to the specific product (in the case of cameras, see Appendix LL) and was adapted from Sheng, et al. (2005);

the survey consisted of eight questions. The questions used a 9-point Likert scale anchored by “strongly disagree” to “strongly agree” to assess consumer decision uncertainty, including participant inadequacy of information, product uncertainty, prediction uncertainty, and justifiability. Participants filled out the survey immediately after choosing the product that provides the best value to them.

The final measure was a demographic survey (see Appendix XXXX) adapted from the United States 2000 census. The questions provide basic background information on the participants.

### **Procedure**

The experiment was conducted at Connecticut College using the participant pool from introductory psychology courses, as well as a sign up sheet at the college’s library. After writing their e mail address and sorted randomly to be put into one of the three groups, students were sent a link online, respective to the group into which they were placed in. Every participant completed a consent form (see Appendix YYYY) before beginning the experiment. Participants received one of the three online surveys. Regardless of which survey the participants received, they were first told to evaluate how familiar they were with the product, how knowledgeable they were about the attributes, and how valuable each attribute was to them. Next, participants received a second survey and chose what product provided the best value to them based on the information provided by the survey. After the participants finished choosing among the products, they were asked to answer another survey that evaluated consumer decision uncertainty. The final section of the survey gathered information on the demographics of the individual. When participants finished the experiment, they concluded their participation in the study and were subsequently given a debriefing form (see Appendix ZZZZ).

## **Results and Discussion**

### **Dual Product Condition**

Table 11 shows participants' choices for each product as a function of the choice location on the left or on the right in set 1 or in set 2. The data were analyzed using a Chi squared Goodness of Fit test. The null hypothesis was that the two positions (left and right) in both sets would be equally likely and no bias toward a position would be shown. Set 1 of TVs, set 2 of binoculars, set 2 of vacuums, set 2 of washing machines, set 1 and 2 of surround sound speakers, and set 2 of dishwashers were all statistically significant (see Table 11). Summing the results of all the products, there is a significant difference for set 2, which shows a bias toward the lower end (lower quality) of products.

There were not enough participants to run a multivariate analysis of variance (MANOVA) across all nine products. Univariate analysis of variance (ANOVA) was conducted on each dependent variable and each variable was significant (see Table 12). A Tukey post hoc test on the mean scores shows that when looking at the familiarity of products, televisions were most familiar compared to other products (see Table 13). For the knowledge of attribute 1, televisions were again significant compared to other products (see Table 14). Knowledge of attribute 2 had fewer products that were statistically significant (see Table 15). For the value of attribute 1, portable external hard drives and dishwashers were significant compared to other products (see Table 16), while the value of attribute 2 had fewer products that were statistically significant when compared to other products (see Table 17).

Overall, when two products were shown in set 1 and in set 2, set 1 choices were equally likely to be chosen; however, set 2 had a left bias, which means the lower quality product was more likely to be chosen.

Table 11

*Study 2 Dual Product Position*

Product	Product Position			$\chi^2$ *	<i>p</i> value
	A	B	C		
Digital Camera					
Set 1	4	7		.36	.549
Set 2		9	4	1.24	.266
TV					
Set 1	2	10		4.08	.043
Set 2		5	7	.08	.777
Binoculars					
Set 1	7	4		.36	.549
Set 2		13	0	11.08	.001
Vacuum					
Set 1	5	6		0	1.00
Set 2		12	1	7.70	.006
External Hard Drive					
Set 1	6	7		0	1.00
Set 2		4	7	.36	.549
Lawn Mower					
Set 1	6	8		.08	.777
Set 2		8	2	2.50	.114
Washing Machine					
Set 1	6	6		0	1.00
Set 2		10	2	4.08	.043
Surround Sound Speakers					
Set 1	10	1		5.82	.016
Set 2		13	0	11.08	.001
Dishwasher					
Set 1	9	3		2.08	.149
Set 2		11	1	6.76	.009
Total					
Set 1	55	52		.04	.842
Set 2		85	46	11.02	.001

\*d.f. = 1



Table 12

*Study 2 Dual Product*

Variable	Product									F*	d.f.*	p value
	Digital Cameras	TV	Binoculars	Vacuum	Hard Drive	Lawn Mower	Washing Machine	Speakers	Dishwasher			
Familiarity												
M	5.82	6.09	4.68	5.14	4.68	4.05	4.86	4.27	4.64	6.10	5, 98	< .001
SD	1.22	.811	1.73	1.49	2.03	1.99	1.61	1.75	1.68			
Knowledge 1												
M	4.68	5.86	4.55	4.18	4.14	2.95	3.82	3.45	3.95	7.83	6, 117	< .001
SD	1.56	.834	1.57	1.56	2.17	1.53	1.79	1.60	1.68			
Knowledge 2												
M	4.18	4.55	2.82	2.55	4.14	3.05	3.82	3.41	3.59	4.81	5, 110	< .001
SD	1.62	1.34	1.44	1.34	1.91	1.59	1.65	1.74	1.62			
Value 1												
M	8.18	8.50	8.36	6.82	9.86	7.95	8.50	7.32	6.68	7.60	5, 104	< .001
SD	1.84	2.09	2.34	2.15	1.89	1.91	1.74	1.70	2.08			
Value 2												
M	9.36	8.73	8.59	7.95	8.95	7.45	9.14	9.18	8.32	4.68	4, 89	.001
SD	1.59	1.55	2.63	2.13	2.01	1.77	1.75	1.76	1.49			

\*Greenhouse-Geisser

Table 13

*Study 2 Dual Product- Means and Standard Deviations of Familiarity of products and results of Tukey HSD tests. (N=24)*

Item	$M^a$	$SD$	Item Number								
			1	2	3	4	5	6	7	8	9
1. Digital Cameras	5.82	1.22						**		*	
2. Televisions	6.09	.811			*		*			**	*
3. Binoculars	4.68	1.73									
4. Vacuums	5.14	1.49									
5. Portable External Hard Drive	4.68	2.03									
6. Lawn Mowers	4.05	1.99									
7. Washing Machine	4.86	1.61									
8. Speakers	4.27	1.75									
9. Dishwashers	4.64	1.68									

\*Significant differences in mean ratings ( $p < .05$ ) are marked with an asterisk.

\*\*Significant differences in mean ratings ( $p < .01$ ) are marked with two asterisks.

<sup>a</sup>Ratings were from 1, strongly disagree, to 7, strongly agree.

Table 14

*Study 2 Dual Product- Means and Standard Deviations of Knowledge 1 of products and results of Tukey HSD tests. (N=24)*

Item	$M^a$	$SD$	Item Number								
			1	2	3	4	5	6	7	8	9
1. Digital Cameras	4.68	1.56						**			
2. Televisions	5.86	.834				**	**	**	**	**	**
3. Binoculars	4.55	1.57						*			
4. Vacuums	4.18	1.56									
5. Portable External Hard Drive	4.14	2.17									
6. Lawn Mowers	2.95	1.53									
7. Washing Machine	3.82	1.79									
8. Speakers	3.45	1.60									
9. Dishwashers	3.95	1.68									

\*Significant differences in mean ratings ( $p < .05$ ) are marked with an asterisk.

\*\*Significant differences in mean ratings ( $p < .01$ ) are marked with two asterisks.

<sup>a</sup>Ratings were from 1, strongly disagree, to 7, strongly agree.

Table 15

*Study 2 Dual Product- Means and Standard Deviations of Knowledge 2 of products and results of Tukey HSD tests. (N=24)*

Item	$M^a$	$SD$	Item Number								
			1	2	3	4	5	6	7	8	9
1. Digital Cameras	4.18	1.62									
2. Televisions	4.55	1.34			*						
3. Binoculars	2.82	1.44									
4. Vacuums	2.55	1.34					**				
5. Portable External Hard Drive	4.14	1.91									
6. Lawn Mowers	3.05	1.59									
7. Washing Machine	3.82	1.65									
8. Speakers	3.41	1.74									
9. Dishwashers	3.59	1.62									

\*Significant differences in mean ratings ( $p < .05$ ) are marked with an asterisk.

\*\*Significant differences in mean ratings ( $p < .01$ ) are marked with two asterisks.

<sup>a</sup>Ratings were from 1, strongly disagree, to 7, strongly agree.

Table 16

*Study 2 Dual Product- Means and Standard Deviations of Value 1 of products and results of Tukey HSD tests. (N=24)*

Item	$M^a$	$SD$	Item Number								
			1	2	3	4	5	6	7	8	9
1. Digital Cameras	8.18	1.84									
2. Televisions	8.50	2.09									*
3. Binoculars	8.36	2.34									
4. Vacuums	6.82	2.15					**				
5. Portable External Hard Drive	9.86	1.89						*		**	**
6. Lawn Mowers	7.95	1.91									
7. Washing Machine	8.50	1.74									
8. Speakers	7.32	1.70									*
9. Dishwashers	6.68	2.08									

\*Significant differences in mean ratings ( $p < .05$ ) are marked with an asterisk.

\*\*Significant differences in mean ratings ( $p < .01$ ) are marked with two asterisks.

<sup>a</sup>Ratings were from 1, not important, to 10, very important.

Table 17

*Study 2 Dual Product- Means and Standard Deviations of Value 2 of products and results of Tukey HSD tests. (N=24)*

Item	$M^a$	$SD$	Item Number								
			1	2	3	4	5	6	7	8	9
1. Digital Cameras	9.36	1.59						**			
2. Televisions	8.73	1.55									
3. Binoculars	8.59	2.36									
4. Vacuums	7.95	2.13									
5. Portable External Hard Drive	8.95	2.01									
6. Lawn Mowers	7.45	1.77							*	*	
7. Washing Machine	9.14	1.75									
8. Speakers	9.18	1.76									
9. Dishwashers	8.32	1.49									

\*Significant differences in mean ratings ( $p < .05$ ) are marked with an asterisk.

\*\*Significant differences in mean ratings ( $p < .01$ ) are marked with two asterisks.

<sup>a</sup>Ratings were from 1, not important, to 10, very important.

### **Compromise Product Condition**

Table 18 shows participants' choices for each product as a function of the choice location on the left, in the middle, or on the right. The data were analyzed using a Chi squared Goodness of Fit test. The null hypothesis was that the three positions (left, middle, and right) would be equally likely and no bias toward a position would be shown. All products were statistically significant except for digital cameras and external hard drives. Of those products that were significant, vacuums, lawn mowers, and washing machines followed the pattern of the compromise effect (see Table 18).

Overall, when products were summed together, there was evidence of a compromise effect, confirming the hypothesis of the compromise effect when there are many products being analyzed. Interestingly, for the specific products, there was either a compromise effect, or a left or right bias.

Televisions, binoculars, surround sound speakers, and dishwashers were significant due to a bias in one direction. Summing the results of all the products, there is a significant difference and the pattern shows a compromise effect.

There were not enough participants to run a multivariate analysis of variance (MANOVA) across all nine products. Univariate analysis of variance (ANOVA) was conducted on each dependent variable and each variable was significant (see Table 19). A Tukey post hoc test on the mean scores shows that when looking at the familiarity of products, lawn mowers were most familiar compared to other products (see Table 20). For the knowledge of attribute 1, televisions were significant compared to other products (see Table 21). Knowledge of attribute 2, vacuums were statistically significant (see Table 22). For the value of attribute 1, surround sound speakers were significant compared to all products except portable external hard drives (see

Table 18

*Study 2 Compromise Effect Product Position*

Product	Product Position			$\chi^2$ *	<i>p</i> value
	A	B	C		
Digital Camera	5	11	6	2.82	.224
TV	0	14	8	13.46	.001
Binoculars	14	6	2	10.18	.006
Vacuum	7	13	2	8.27	.016
External Hard Drive	7	5	10	1.72	.422
Lawn Mower	3	17	2	19.18	<.001
Washing Machine	5	14	3	9.36	.009
Surround Sound Speakers	15	5	2	12.64	.002
Dishwasher	10	11	1	8.27	.016
Total	66	96	36	27.27	<.001

\*d.f. = 2



Table 19

*Study 2 Compromise Effect Product*

Variable	Product									F*	d.f.*	p value
	Digital Cameras	TV	Binoculars	Vacuum	Hard Drive	Lawn Mower	Washing Machine	Speakers	Dishwasher			
Familiarity												
<i>M</i>	5.50	5.86	4.50	4.95	4.68	3.95	5.32	5.32	5.00	4.80	5, 107	< .001
<i>SD</i>	1.19	1.09	1.60	1.62	1.49	1.91	1.40	.945	1.27			
Knowledge 1												
<i>M</i>	4.50	5.23	4.09	3.64	3.55	2.86	3.59	3.95	3.55	5.75	6, 128	< .001
<i>SD</i>	1.19	1.31	1.80	1.71	1.65	1.42	1.50	1.68	1.41			
Knowledge 2												
<i>M</i>	3.73	4.36	2.55	2.05	3.86	3.18	3.45	3.91	3.45	7.38	5, 96	< .001
<i>SD</i>	1.70	1.22	1.22	.844	1.81	1.74	1.63	1.60	1.50			
Value 1												
<i>M</i>	7.68	8.55	8.18	6.59	9.45	7.32	8.32	4.45	7.09	7.62	4, 90	< .001
<i>SD</i>	1.99	1.63	2.09	1.74	1.82	2.15	1.96	2.20	1.77			
Value 2												
<i>M</i>	8.82	8.27	8.68	6.91	8.91	7.55	9.05	8.55	6.86	8.31	4, 80	< .001
<i>SD</i>	1.30	1.93	1.62	1.85	1.51	2.15	1.36	1.44	1.86			

\*Greenhouse-Geisser

Table 20

*Study 2 Compromise Effect Product- Means and Standard Deviations of Familiarity of products and results of Tukey HSD tests.  
(N=22)*

Item	$M^a$	$SD$	Item Number								
			1	2	3	4	5	6	7	8	9
1. Digital Cameras	5.50	1.19						**			
2. Televisions	5.86	1.09			*			**			
3. Binoculars	4.50	1.60									
4. Vacuums	4.95	1.62									
5. Portable External Hard Drive	4.68	1.49									
6. Lawn Mowers	3.95	1.91						*	*		
7. Washing Machine	5.32	1.40									
8. Speakers	5.32	.945									
9. Dishwashers	5.00	1.27									

\*Significant differences in mean ratings ( $p < .05$ ) are marked with an asterisk.

\*\*Significant differences in mean ratings ( $p < .01$ ) are marked with two asterisks.

<sup>a</sup>Ratings were from 1, strongly disagree, to 7, strongly agree.

Table 21

*Study 2 Compromise Effect Product- Means and Standard Deviations of Knowledge 1 of products and results of Tukey HSD tests.*  
(N=22)

Item	$M^a$	$SD$	Item Number								
			1	2	3	4	5	6	7	8	9
1. Digital Cameras	4.50	1.19						**			
2. Televisions	5.23	1.31				**	**	**	**		**
3. Binoculars	4.09	1.80									
4. Vacuums	3.64	1.71									
5. Portable External Hard Drive	3.55	1.65									
6. Lawn Mowers	2.86	1.42									
7. Washing Machine	3.59	1.50									
8. Speakers	3.95	1.68									
9. Dishwashers	3.55	1.41									

\*\*Significant differences in mean ratings ( $p < .01$ ) are marked with two asterisks.

<sup>a</sup>Ratings were from 1, strongly disagree, to 7, strongly agree.

Table 22

*Study 2 Compromise Effect Product- Means and Standard Deviations of Knowledge 2 of products and results of Tukey HSD tests.  
(N=22)*

Item	$M^a$	$SD$	Item Number								
			1	2	3	4	5	6	7	8	9
1. Digital Cameras	3.73	1.70				*					
2. Televisions	4.36	1.22			**	**					
3. Binoculars	2.55	1.22									
4. Vacuums	2.05	.844					**			**	
5. Portable External Hard Drive	3.86	1.81									
6. Lawn Mowers	3.18	1.74									
7. Washing Machine	3.45	1.63									
8. Speakers	3.91	1.60									
9. Dishwashers	3.45	1.50									

\*Significant differences in mean ratings ( $p < .05$ ) are marked with an asterisk.

\*\*Significant differences in mean ratings ( $p < .01$ ) are marked with two asterisks.

<sup>a</sup>Ratings were from 1, strongly disagree, to 7, strongly agree.

Table 23), while the value of attribute 2 of dishwashers had significance more so than the other products, at the alpha level of .01 product when compared to other products. (see Table 24).

### **Sold Out Condition**

Table 25 shows participants' choices for each product as a function of the choice location based on the sold out (SO) position of left, middle, and right for sets 1, 2, and 3 respectfully. The data were analyzed using a Chi squared Goodness of Fit test. The null hypothesis was that the two positions that were not marked "sold out" in all three sets would be equally likely and no bias toward a position would be shown. Set 3 of digital cameras, all sets of televisions, set 1 and 3 of binoculars, set 1 of external hard drives, set 1 of lawn mowers, set 3 of washing machines, all sets of surround sound speakers, and all sets of dishwashers were all significant (see Table 25) and showed a bias towards the lesser quality product or a bias towards the better quality product. Summing the results of all the products, there is a bias toward the lower end (lower quality) of products, irrespective of the location of the sold out option.

Overall, when products were summed together, there was a left bias towards the lower quality product. Contrary to the to the hypothesis of study 2, participants were more likely to choose the lower quality product (see Table 25).

There were not enough participants to run a multivariate analysis of variance (MANOVA) across all nine products. Univariate analysis of variance (ANOVA) was conducted on each dependent variable and each variable was significant (see Table 26). A Tukey post hoc test on the mean scores shows that when looking at the familiarity of products, televisions and surround sound speakers were most familiar compared to other products (see Table 27). For the knowledge of attribute 1 and attribute 2, televisions were again significant compared to other products (see Table 28, Table 29, respectfully). For the value of attribute 1, portable external

Table 23

*Study 2 Compromise Effect Product- Means and Standard Deviations of Value 1 of products and results of Tukey HSD tests. (N=22)*

Item	$M^a$	$SD$	Item Number								
			1	2	3	4	5	6	7	8	9
1. Digital Cameras	7.86	1.99					*			**	
2. Televisions	8.55	1.63				*				**	
3. Binoculars	8.18	2.09								**	
4. Vacuums	6.59	1.74					**			**	
5. Portable External Hard Drive	9.45	1.82						**			**
6. Lawn Mowers	7.32	2.15								**	
7. Washing Machine	8.32	1.96								*	
8. Speakers	4.45	2.20									**
9. Dishwashers	7.09	1.77									

\*Significant differences in mean ratings ( $p < .05$ ) are marked with an asterisk.

\*\*Significant differences in mean ratings ( $p < .01$ ) are marked with two asterisks.

<sup>a</sup>Ratings were from 1, not important, to 10, very important.

Table 24

*Study 2 Compromise Effect Product- Means and Standard Deviations of Value 2 of products and results of Tukey HSD tests. (N=22)*

Item	$M^a$	$SD$	Item Number								
			1	2	3	4	5	6	7	8	9
1. Digital Cameras	8.82	1.30				*					*
2. Televisions	8.27	1.93									
3. Binoculars	8.68	1.62				*					*
4. Vacuums	6.91	1.85									
5. Portable External Hard Drive	8.91	1.51									*
6. Lawn Mowers	7.55	2.15									
7. Washing Machine	9.05	1.36									**
8. Speakers	8.55	1.44									
9. Dishwashers	6.86	1.86									

\*Significant differences in mean ratings ( $p < .05$ ) are marked with an asterisk.

\*\*Significant differences in mean ratings ( $p < .01$ ) are marked with two asterisks.

<sup>a</sup>Ratings were from 1, not important, to 10, very important.

Table 25

*Study 2 Sold Out Product Position*

Product	Product Position			$\chi^2$ *	<i>p</i> value
	A	B	C		
Digital Camera					
Set 1	SO	9	5	.64	.424
Set 2	7	SO	7	0	1.00
Set 3	3	10	SO	2.76	.097
Total	10	19	12	3.27	.195
Television					
Set 1	SO	3	12	4.26	.039
Set 2	3	SO	10	2.76	.097
Set 3	3	10	SO	2.76	.097
Total	6	13	22	9.42	.009
Binoculars					
Set 1	SO	11	3	3.50	.061
Set 2	7	SO	6	0	1.00
Set 3	11	3	SO	3.50	.061
Total	18	14	9	2.98	.225
Vacuum					
Set 1	SO	8	8	0	1.00
Set 2	11	SO	5	1.56	.212
Set 3	7	2	SO	1.78	.182
Total	18	10	13	2.39	.303
External Hard Drive					
Set 1	SO	1	13	8.64	.003
Set 2	7	SO	7	0	1.00
Set 3	5	7	SO	.08	.777
Total	12	8	20	5.60	.061



Table 25 (continued)

Product	Product Position			$\chi^2^*$	<i>p</i> value
	A	B	C		
Lawn Mower					
Set 1	SO	12	2	5.78	.016
Set 2	7	SO	5	.08	.777
Set 3	8	7	SO	0	1
Total	15	19	7	5.47	.065
Washing Machine					
Set 1	SO	7	6	0	1.00
Set 2	10	SO	4	1.78	.182
Set 3	13	1	SO	8.64	.003
Total	23	8	10	9.71	.008
Surround Sound Speakers					
Set 1	SO	14	0	12.08	.001
Set 2	13	SO	0	11.08	.001
Set 3	11	3	SO	3.50	.061
Total	24	17	0	22.30	<.001
Dishwasher					
Set 1	SO	12	2	5.78	.016
Set 2	11	SO	2	4.92	.027
Set 3	11	3	SO	3.50	.061
Total	22	15	4	12.05	.002
Total					
Set 1	SO	77	51	71.93	<.001
Set 2	76	SO	46	72.08	<.001
Set 3	72	46	SO	67.50	<.001
Total	148	123	97	10.60	.005

\*d.f. = 2

Table 26

*Study 2 Sold Out Product*

Variable	Product									F*	d.f.*	p value
	Digital Cameras	TV	Binoculars	Vacuum	Hard Drive	Lawn Mower	Washing Machine	Speakers	Dishwasher			
Familiarity												
<i>M</i>	5.80	6.03	4.48	4.77	4.85	4.12	4.93	9.98	4.82	9.37	5, 184	< .001
<i>SD</i>	1.20	.800	1.91	2.03	1.83	2.02	1.90	1.73	1.82			
Knowledge 1												
<i>M</i>	5.05	5.65	4.32	3.83	3.97	3.55	3.48	3.80	3.60	15.27	6, 125	< .001
<i>SD</i>	1.30	1.05	1.89	1.90	1.85	1.91	1.80	2.02	1.84			
Knowledge 2												
<i>M</i>	4.50	4.90	3.10	2.63	4.32	3.55	3.55	4.05	3.58	14.27	5, 192	< .001
<i>SD</i>	1.78	1.50	1.68	1.51	1.98	2.09	1.84	1.95	1.91			
Value 1												
<i>M</i>	8.70	8.88	7.92	7.30	9.80	7.43	8.45	7.40	7.03	12.05	5, 191	< .001
<i>SD</i>	1.44	1.51	2.53	1.94	1.60	2.90	1.84	2.40	2.11			
Value 2												
<i>M</i>	9.48	8.55	8.70	7.35	9.20	7.85	9.08	8.97	7.83	7.23	5, 189	< .001
<i>SD</i>	1.45	1.66	2.48	2.41	1.54	1.96	1.53	1.67	2.53			

\*Greenhouse-Geisser

Table 27

*Study 2 Sold Out Product- Means and Standard Deviations of Familiarity of products and results of Tukey HSD tests. (N=42)*

Item	$M^a$	$SD$	Item Number								
			1	2	3	4	5	6	7	8	9
1. Digital Cameras	5.80	1.20			**	*		**		**	
2. Televisions	6.03	.800			**	**	*	**	*	**	*
3. Binoculars	4.50	1.91								**	
4. Vacuums	4.95	2.03								**	
5. Portable External Hard Drive	4.68	1.83								**	
6. Lawn Mowers	3.95	2.02								**	
7. Washing Machine	5.32	1.90								**	
8. Speakers	5.32	1.73									**
9. Dishwashers	5.00	1.82									

\*Significant differences in mean ratings ( $p < .05$ ) are marked with an asterisk.

\*\*Significant differences in mean ratings ( $p < .01$ ) are marked with two asterisks.

<sup>a</sup>Ratings were from 1, strongly disagree, to 7, strongly agree.

Table 28

*Study 2 Sold Out Product- Means and Standard Deviations of Knowledge 1 of products and results of Tukey HSD tests. (N=42)*

Item	$M^a$	$SD$	Item Number								
			1	2	3	4	5	6	7	8	9
1. Digital Cameras	5.05	1.30				**	**	**	**	**	**
2. Televisions	5.65	1.05			**	**	**	**	**	**	**
3. Binoculars	4.32	1.89									
4. Vacuums	3.83	1.90					**	**	**	**	**
5. Portable External Hard Drive	3.97	1.85									
6. Lawn Mowers	3.55	1.91									
7. Washing Machine	3.48	1.80									
8. Speakers	3.80	2.02									
9. Dishwashers	3.60	1.84									

\*\*Significant differences in mean ratings ( $p < .01$ ) are marked with two asterisks.

<sup>a</sup>Ratings were from 1, strongly disagree, to 7, strongly agree.

Table 29

*Study 2 Sold Out Product- Means and Standard Deviations of Knowledge 2 of products and results of Tukey HSD tests. (N=42)*

Item	$M^a$	$SD$	Item Number								
			1	2	3	4	5	6	7	8	9
1. Digital Cameras	4.50	1.78			**	**					
2. Televisions	4.90	1.50			**	**		**	**		**
3. Binoculars	3.10	1.68					**				
4. Vacuums	2.63	1.51					**			**	
5. Portable External Hard Drive	4.32	1.98									
6. Lawn Mowers	3.55	2.09									
7. Washing Machine	3.55	1.84									
8. Speakers	4.05	1.95									
9. Dishwashers	3.58	1.91									

\*\*Significant differences in mean ratings ( $p < .01$ ) are marked with two asterisks.

<sup>a</sup>Ratings were from 1, strongly disagree, to 7, strongly agree.

hard drives and dishwashers were significant compared to other products (see Table 30), while the value of attribute 2 had fewer products that were statistically significant when compared to other products (see Table 31).

## **General Discussion**

### **Study 1**

In Study 1, the compromise effect was evident and followed the same compromise pattern as previous literature suggested (Huber, Payne, & Puto, 1982; Huber & Puto, 1983; Simonson & Tversky, 1992) even with more realistic conditions implemented. A more modern day perspective was used. Although the compromise effect was not always evident in the six products, when products were summed together, there was evidence of the compromise effect. Summing together the responses for the products had three implications. Past literature had individual data for each product and did total them together for analysis as well (Sheng, et al, 2005; Chang & Liu, 2008).

### **Study 1- Implication 1**

The first implication was when looking at the products individually there was evidence of the compromise effect; however, there were some products that produced a bias in one direction (see Table 3). These biases were significant at times, which is important. When attributes of products are shown, which may have influenced the participant in some way, there was not an instance of the participants choosing predominately the left or right positions of the product, leaving the middle choices relatively un-chosen (e.g., Left = 10, Middle = 2, Right = 10). Having the middle option always be chosen and part of the left or right bias has an important market contribution. When marketers position their products, the middle option will always be chosen, and therefore will be bought. Marketers can be assured that the middle option will always sell. If

Table 30

*Study 2 Sold Out Product- Means and Standard Deviations of Value 1 of products and results of Tukey HSD tests. (N=42)*

Item	$M^a$	$SD$	Item Number								
			1	2	3	4	5	6	7	8	9
1. Digital Cameras	8.70	1.44				*					**
2. Televisions	8.88	1.51				*		*		*	**
3. Binoculars	7.92	2.53					**				*
4. Vacuums	7.30	1.94					**				
5. Portable External Hard Drive	9.80	1.60						**		**	**
6. Lawn Mowers	7.43	2.90									
7. Washing Machine	8.45	1.84									*
8. Speakers	7.40	2.40									
9. Dishwashers	7.03	2.11									

\*Significant differences in mean ratings ( $p < .05$ ) are marked with an asterisk.

\*\*Significant differences in mean ratings ( $p < .01$ ) are marked with two asterisks.

<sup>a</sup>Ratings were from 1, not important, to 10, very important.

Table 31

*Study 2 Sold Out Product- Means and Standard Deviations of Value 2 of products and results of Tukey HSD tests. (N=42)*

Item	$M^a$	$SD$	Item Number								
			1	2	3	4	5	6	7	8	9
1. Digital Cameras	9.48	1.45				**		*			*
2. Televisions	8.55	1.66									
3. Binoculars	8.70	2.48									
4. Vacuums	7.35	2.41					**		**	*	
5. Portable External Hard Drive	9.20	1.54									
6. Lawn Mowers	7.85	1.96									
7. Washing Machine	9.08	1.53									
8. Speakers	8.97	1.67									
9. Dishwashers	7.83	2.35									

\*Significant differences in mean ratings ( $p < .05$ ) are marked with an asterisk.

\*\*Significant differences in mean ratings ( $p < .01$ ) are marked with two asterisks.

<sup>a</sup>Ratings were from 1, not important, to 10, very important.



there is not a bias, then a compromise effect is evident, and the middle option becomes a more desirable item to sell in the marketer's point of view. Regardless of a bias or a compromise effect, the middle option seems to be a product that will always be chosen from a buyer's point of view, and therefore is a product that will always sell.

### **Study 1- Implication 2**

The second implication from Study 1 exploits a limitation of the compromise effect. Although summing all the products together produced the compromise effect, the individual products themselves did not always demonstrate a compromise effect. One explanation is the lack of power (insufficient number of participants). With more participants, it is still hypothesized that the compromise effect would still be evident for the individual products.

### **Study 1- Implication 3**

The third implication was the uncertainty value of the object. Consistent with Sheng et al. (2005) and Sinn et al. (2007) findings, individuals who experienced higher decision uncertainty were more likely to make a compromise choice. Digital cameras and TVs are common electronics known to college students; however, lawn mowers are not. Lawn mowers are usually purchased once one has a yard and a lawn that needs to be mowed, which implies one has a home and lives there. Rarely do college students own a home and therefore they would not purchase a lawn mower themselves. Another reason of why lawn mowers may not be a popular item among college students is because lawn mowers are not a popular item to purchase because in today's culture, lawn mowing is not popular. Regardless of the reason, lawn mowers were a product less known compared to the other products in this study. Therefore, a compromise effect was more likely to be evident for lawn mowers (see Table 3).

### **Study 2**

Not only did Study 1 measure the compromise effect, but Study 2 also measured a compromise product condition. As in the previous study, Study 2 lawn mowers were statistically significant and followed the compromise effect pattern. Vacuums and washing machines were also significant and followed the compromise pattern. For reasons described previously related to uncertainty (Sheng et al., 2005; Sinn et al., 2007), lawn mowers, vacuums and washing machines seem unfamiliar to college students. A compromise effect occurred for all products in the compromise condition of Study 2, as in Study 1.

Due to the participant pool of college students, there were interesting findings in both the dual product condition as well as the sold out condition. Further discussion of the participants is described in each condition.

### **Study 2- Dual Product**

Study 2 looked at a dual product condition, where the hypothesis was there would be an even split (50/50) between the products. Summing the results of each product, set 1 followed the even split among products, but set 2 did not. Set 2 had a bias toward the product that was of lesser quality and was statistically significant. There were two implications of the dual product condition results.

### **Study 2- Dual Product Implication 1**

One implication was that the dependent variables measured in the ANOVA and Tukey tests (see Table 12, Table 13-17) showed there may have been prior knowledge of each of the products. If so, a bias would occur based on prior knowledge and product preference. Even with the slightest mention of a recommendation from a friend, family member, an online source, or other reviews, a bias would occur. Also, due to the participant pool having only college students, preferences of products could have been influenced by the student's income. The majority of

college students do not have a large income, primarily because they are enrolled in a university or college and is focusing on their academics. Another reason may be students are attending a university or college to enhance their education and experiences to find a job and steady income in the future. Regardless of the reason, establish a strong income is usually not the priority in a student's mind and therefore they are frugal with their money, choosing the lesser quality item.

### **Study 2- Dual Product Implication 2**

The second implication of the dual product condition results was as the quality increased, participants were selecting the lower quality product. When looking at the summed results of set 2, there is a clear bias toward product B (see Table 11). There may be prior knowledge of familiarity of the product and its attributes. If the knowledge is violated, the participants may have retreated to the lesser quality item. For reasons described previously related to student's being frugal with their money, students may be geared towards choosing the cheaper option

### **Study 2- Sold Out Condition**

Although the implications of the dual product are important, its main purpose was to be a comparison for the sold out condition. Set 1 and set 2 of the dual product condition would be matched with set 3 and set 1 of the sold out condition respectfully. When comparing both conditions, set 2 of the dual condition and set 1 of the sold out condition followed the same pattern of a bias toward the left; however, set 1 of the dual condition and set 3 of the sold out condition did not follow the same pattern (see Tables 11 and 25). The results did not follow the original hypothesis of in the third survey, people were more likely to choose Option B due to the anchor or attraction of Option C being sold out.

### **Study 2- Sold Out Condition Implication 1**

The sold out condition had two important implications in this study. Looking at the

summed product of the sold out condition, there was always a left bias when participants were choosing a product. For most of the individual products, a left bias was also evident (see Table 25). The individual total sets (set 1, 2, and 3) also had a left bias, which were all statistically significant. The sold out condition implied that the lower quality item would always be chosen when all products were summed together. The act of using the words “sold out” and blocking the choice of the product could be a useful tactic when marketers are placing and pricing products. While deception is frowned upon, if an item is truly sold out, then the lower quality item would be more likely to be chosen and marketers could use this strategy to their advantage, especially for college students since they are trying to save money.

### **Study 2- Sold Out Condition Implication 2**

The second implication of the sold out condition was that the compromise effect was no longer was evident. There was not a pattern of a compromise effect when products were summed together (see Table 25). Although the fundamentals of the compromise effect are important, the sold out condition was an extension of the compromise effect but did not produce the same pattern of the compromise effect. With the sold out condition in place, participants are swayed in some way to choose an option other than the middle. When the highest quality product is sold out (see Appendix KK), one viewpoint is that the product is in high demand and the next option (the lower quality product) is the next best product to choose (which would be the middle option). Another related reason viewpoint might be that the attraction effect pulls the consumer to choose the middle option because there is an attraction of a product being sold out. Due to the product’s high demand, there must be something desirable about it. Therefore, consumers choose the next best thing. Regardless of the reason, the current study says otherwise. The hypothesis is that because college students were the participant pool combined with the financial status of

students, participants chose the cheaper option because of their financial constraints.

One limitation of both studies was the small number of participants. Also though conclusions were drawn from each of the conditions in Study 1 and Study 2, products were summed together to produce stronger, more complete results. With more participants, individual products could be more thoroughly analyzed and more statistical tests could be used. Another limitation may have been that by the end of the survey, participants started to choose answers that were not their true intentions due to the mental exhaustion of filling out many surveys and selecting many products.

Another limitation was the analysis of how certain participants were after making their decision of a product. Although participants answered the survey, it was not analyzed due to the importance of other factors being analyzed first. By measuring the confidence of the participant's choices, a measure of loss aversion could be analyzed (Kahneman, Knetsch, & Thaler, 1991; Tversky & Kahneman, 1991; Chang & Liu, 2008).

The most important limitation was the participant pool. Only college students were surveyed. Although there are many outcomes that could occur from using participants with steady incomes, the hypothesis is if participants did have steady incomes, there would not be a bias towards the left in the sold out scenario- there would be more of a mixture of responses.

### **General Implications- Dual condition vs. Sold Out condition**

As previously mentioned, Sets 1 and set 2 of the dual product condition were matched with sets 3 and set 1 of the sold out condition respectfully for analysis. The null hypothesis was that in both cases, there would a 50/50 choice between each product in each condition. The dual condition served as a comparison to the sold out condition to analyze if the words "sold out" did make a difference when participants were choosing the product that provided the best value to

them. In set 1 of the dual condition (see Table 11) the null hypothesis was accepted; however, its sold out counter part, set 3 of the sold out condition (see Table 25), did not follow the same pattern. Set 3 of the sold out condition produced a left bias, with product A being chosen more often than product B. In this specific case, since there is a comparison between the dual condition and the sold out condition, the sold out condition influenced participant's choices. The words "sold out" condition has some implication towards participants choosing the lesser quality option. Like mentioned previously, since college students were used as participants, financial constraints could be affecting the results.

### **General Implications- Sold Out Condition vs. Compromise Effect**

Although the sold out condition provided interesting results, the compromise effect is the fundamental theory behind the sold out effect. The sold out effect needs to be further investigated; however, as mentioned previously, it seems that when the sold out condition is implemented, the compromise effect is no longer evident, and vice versa. Under uncertainty, it seems that the compromise effect loses its power when there is a sold out product. Based on this study, it seems that the compromise effect must have at least three products and at least one of the products can be chosen; however, if there are three choices and one is not allowed to be chosen, the compromise effect is no longer evident. Having three products to choose from is a fundamental factor of the compromise effect.

### **General Implications for Marketing Purposes**

Practical implications of this study showed how the compromise effect was evident in a more realistic market setting and that the sold out condition anchors people toward the lower quality product, especially for college students in the United States. Marketers should take note of strategies they can use when pricing and placing similar products next to each other when

their market are college students. While the anchoring and compromise effect are the foundations of this study, the sold out condition implies another strategy that can be implemented in market settings; however, how powerful the strategy is another matter. Not only can marketers use this strategy, consumers can use it as well. When making choices, prior knowledge of the compromise effect and the sold out effect allows consumers to make more rational choices based on their own preference. As stated previously, uncertainty is an important factor in both compromise and sold out conditions. Further research of participants other than college students would answer the question of how to fully implement the sold out condition in market settings and how it affects consumers. There are a number of factors when consumers make their choices, and the sold out condition provides another important factor to be analyzed.

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## Appendix A

## Product Survey

*Please answer the following statements about specific products by circling the number that best corresponds to how you feel about the statement.*

**1 = Strongly Disagree**  
**2 = Disagree**  
**3 = Disagree Somewhat**  
**4 = Undecided**  
**5 = Agree Somewhat**  
**6 = Agree**  
**7 = Strongly Agree**

## 1. Digital Cameras

A. I am familiar with digital cameras

1      2      3      4      5      6      7

B. I am knowledgeable about the meaning of price of a digital camera

1      2      3      4      5      6      7

C. I am knowledgeable about the meaning of megapixels of a digital camera

1      2      3      4      5      6      7

## 2. Televisions (TVs)

A. I am familiar with TVs

1      2      3      4      5      6      7

B. I am knowledgeable about the meaning of the screen size of TVs

1      2      3      4      5      6      7

C. I am knowledgeable about the meaning of the resolution of TVs

1      2      3      4      5      6      7

## 3. Binoculars

A. I am familiar with binoculars

1      2      3      4      5      6      7

B. I am knowledgeable about the meaning of magnification (zoom) of binoculars

1      2      3      4      5      6      7

**1 = Strongly Disagree**  
**2 = Disagree**  
**3 = Disagree Somewhat**  
**4 = Undecided**  
**5 = Agree Somewhat**  
**6 = Agree**  
**7 = Strongly Agree**

C. I am knowledgeable about the meaning of price of binoculars

1      2      3      4      5      6      7

#### 4. Vacuums

A. I am familiar with vacuums

1      2      3      4      5      6      7

B. I am knowledgeable about the meaning of the warranty of vacuums

1      2      3      4      5      6      7

C. I am knowledgeable about the meaning of amps of vacuums

1      2      3      4      5      6      7

#### 5. Portable External Hard Drives

A. I am familiar with portable external hard drives

1      2      3      4      5      6      7

B. I am knowledgeable about the meaning of price of portable external hard drives

1      2      3      4      5      6      7

C. I am knowledgeable about the meaning of gigabytes of portable external hard drives

1      2      3      4      5      6      7

#### 6. Lawn Mowers

A. I am familiar with lawn mowers

1      2      3      4      5      6      7

B. I am knowledgeable about the meaning of horse-power of lawn mowers

1      2      3      4      5      6      7

C. I am knowledgeable about the meaning of the warranty of lawn mowers

1      2      3      4      5      6      7

## Appendix B

## Attribute Survey

*Please answer the following statements about specific products by circling the number that best corresponds to how you feel about the statement.*

<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>
<i>Not Important</i>					<i>Very Important</i>					

---

## 1. Digital Cameras

A. If you were to buy a Digital Camera, how much would you value the **megapixels** as an attribute?

0	1	2	3	4	5	6	7	8	9	10
Not Important					Very Important					

B. If you were to buy a Digital Camera, how much would you value the **price** as an attribute?

0	1	2	3	4	5	6	7	8	9	10
Not Important					Very Important					

---

## 2. Televisions (TVs)

A. If you were to buy a TV, how much would you value the **screen size** as an attribute?

0	1	2	3	4	5	6	7	8	9	10
Not Important					Very Important					

B. If you were to buy a TV, how much would you value the **resolution** as an attribute?

0	1	2	3	4	5	6	7	8	9	10
Not Important					Very Important					

---

0      1      2      3      4      5      6      7      8      9      10  
*Not Important* *Very Important*

### 3. Binoculars

A. If you were to buy a pair of Binoculars, how much would you value the **magnification** as an attribute?

0      1      2      3      4      5      6      7      8      9      10  
 Not Important Very Important

B. If you were to buy a pair of Binoculars, how much would you value the **price** as an attribute?

0      1      2      3      4      5      6      7      8      9      10  
 Not Important Very Important

---

### 4. Vacuums

A. If you were to buy a Vacuum, how much would you value the **amps** as an attribute?

0      1      2      3      4      5      6      7      8      9      10  
 Not Important Very Important

B. If you were to buy a Vacuum, how much would you value the **warranty** as an attribute?

0      1      2      3      4      5      6      7      8      9      10  
 Not Important Very Important

---

### 5. Portable External Hard Drives

A. If you were to buy a Portable External Hard Drive, how much would you value the **storage space** as an attribute?

0      1      2      3      4      5      6      7      8      9      10  
 Not Important Very Important

0      1      2      3      4      5      6      7      8      9      10  
*Not Important* *Very Important*

B. If you were to buy a Portable External Hard Drive, how much would you value the **price** as an attribute?

0      1      2      3      4      5      6      7      8      9      10  
 Not Important Very Important

---

## 6. Lawn Mowers

A. If you were to buy a Lawn Mower, how much would you value the **warranty** as an attribute?

0      1      2      3      4      5      6      7      8      9      10  
 Not Important Very Important

B. If you were to buy a Lawn Mower, how much would you value the **horsepower** as an attribute?

0      1      2      3      4      5      6      7      8      9      10  
 Not Important Very Important

## Appendix C

## Let's Buy a Camera!

*Please answer the question below based on the information from the chart*

	CAMERA A	CAMERA B	CAMERA C
			
Description	EOS Rebel X	EOS Rebel Y	EOS Rebel Z
Manufacturer	Canon	Canon	Canon
Megapixels	6.2 Megapixels	9.2 Megapixels	12.2 Megapixels
Price	\$389.99	\$439.99	\$489.99

Which camera provides the best value for you? (*circle your answer*)

CAMERA A

CAMERA B

CAMERA C



## Appendix D

## Let's Buy a Camera!

*Please answer the question below based on the information from the chart*

	CAMERA A	CAMERA B	CAMERA C
			
Description	EOS Rebel X	EOS Rebel Y	EOS Rebel Z
Manufacturer	Canon	Canon	Canon
Megapixels	9.2 Megapixels	12.2 Megapixels	15.2 Megapixels
Price	\$439.99	\$489.99	\$539.99

Which camera provides the best value for you? (*circle your answer*)

CAMERA A

CAMERA B

CAMERA C

## Appendix E

## Let's Buy a Camera!

*Please answer the question below based on the information from the chart*

	CAMERA A	CAMERA B	CAMERA C
			
Description	EOS Rebel X	EOS Rebel Y	EOS Rebel Z
Manufacturer	Canon	Canon	Canon
Megapixels	12.2 Megapixels	15.2 Megapixels	18.2 Megapixels
Price	\$489.99	\$539.99	\$589.99

Which camera provides the best value for you? (*circle your answer*)

CAMERA A

CAMERA B

CAMERA C

## Appendix F

## Camera Survey

*Please answer the following statements by circling the number that best corresponds to how you feel about the statement for the Camera you have just chosen.*

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

1. I'm pretty sure I won't change my mind

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

2. I wish that I had more information when making my decision

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

3. I'm sure one of the products was more desirable to me than the other alternatives

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

4. My choice was easy to justify

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

5. I'm sure that I won't be disappointed in my choice

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

6. I'm certain about the performance of each alternative product

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---




7. I feel confident that I have all the information necessary for my decision

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

## Appendix G

## Let's Buy a TV!

*Please answer the question below based on the information from the chart*

	TELEVISION A	TELEVISION B	TELEVISION C
			
Description	Sony Ultra X	Sony Ultra Y	Sony Ultra Z
Manufacturer	Sony	Sony	Sony
Screen Size	24"	27"	30"
Resolution	1280 x 720	1440 x 900	1600 x 1080

Which TV provides the best value for you? (*circle your answer*)

TELEVISION A




TELEVISION B

TELEVISION C

## Appendix H

## Let's Buy a TV!

*Please answer the question below based on the information from the chart*

	TELEVISION A	TELEVISION B	TELEVISION C
			
Description	Sony Ultra X	Sony Ultra Y	Sony Ultra Z
Manufacturer	Sony	Sony	Sony
Screen Size	27"	30"	33"
Resolution	1440 x 900	1600 x 1080	1760 x 1260

Which TV provides the best value for you? (*circle your answer*)

TELEVISION A




TELEVISION B

TELEVISION C

## Appendix I

## Let's Buy a TV!

*Please answer the question below based on the information from the chart*

	TELEVISION A	TELEVISION B	TELEVISION C
			
Description	Sony Ultra X	Sony Ultra Y	Sony Ultra Z
Manufacturer	Sony	Sony	Sony
Screen Size	30"	33"	36"
Resolution	1600 x 1080	1760 x 1260	1920 x 1440

Which TV provides the best value for you? (*circle your answer*)

TELEVISION A

TELEVISION B

TELEVISION C

## Appendix J

## Television Survey

*Please answer the following statements by circling the number that best corresponds to how you feel about the statement for the Television you have just chosen.*

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

1. I'm pretty sure I won't change my mind

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

2. I wish that I had more information when making my decision

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

3. I'm sure one of the products was more desirable to me than the other alternatives

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

4. My choice was easy to justify

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

5. I'm sure that I won't be disappointed in my choice

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

6. I'm certain about the performance of each alternative product

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

7. I feel confident that I have all the information necessary for my decision

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

## Appendix K

## Let's Buy A Pair of Binoculars!

*Please answer the question below based on the information from the chart*

	BINOCULAR A	BINOCULAR B	BINOCULAR C
			
Description	Trailblazer X	Trailblazer Y	Trailblazer Z
Manufacturer	Nikon	Nikon	Nikon
Magnification	10x	15x	20x
Price	\$73.95	\$113.95	\$153.95

Which binocular provides the best value for you? (*circle your answer*)

BINOCULAR A

BINOCULAR B

BINOCULAR C



## Appendix L

## Let's Buy A Pair of Binoculars!

*Please answer the question below based on the information from the chart*

	BINOCULAR A	BINOCULAR B	BINOCULAR C
			
Description	Trailblazer X	Trailblazer Y	Trailblazer Z
Manufacturer	Nikon	Nikon	Nikon
Magnification	15x	20x	25x
Price	\$113.95	\$153.95	\$193.95

Which binocular provides the best value for you? (*circle your answer*)

BINOCULAR A

BINOCULAR B

BINOCULAR C

## Appendix M

## Let's Buy A Pair of Binoculars!

*Please answer the question below based on the information from the chart*

	BINOCULAR A	BINOCULAR B	BINOCULAR C
			
Description	Trailblazer X	Trailblazer Y	Trailblazer Z
Manufacturer	Nikon	Nikon	Nikon
Magnification	20x	25x	30x
Price	\$153.95	\$193.95	\$233.95

Which binocular provides the best value for you? (*circle your answer*)

BINOCULAR A

BINOCULAR B

BINOCULAR C

## Appendix N

## Binocular Survey

*Please answer the following statements by circling the number that best corresponds to how you feel about the statement for the pair of Binoculars you have just chosen.*

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

1. I'm pretty sure I won't change my mind

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

2. I wish that I had more information when making my decision

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

3. I'm sure one of the products was more desirable to me than the other alternatives

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

4. My choice was easy to justify

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

5. I'm sure that I won't be disappointed in my choice

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

6. I'm certain about the performance of each alternative product

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---




7. I feel confident that I have all the information necessary for my decision

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

## Appendix O

## Let's Buy A Vacuum!

*Please answer the question below based on the information from the chart*

	VACUUM A	VACUUM B	VACUUM C
			
Description	Silencer X	Silencer Y	Silencer Z
Manufacturer	Electrolux	Electrolux	Electrolux
Amps	7.5 amps	8.5 amps	9.5 amps
Warranty	5 year	4 year	3 year

Which vacuum provides the best value for you? (*circle your answer*)

VACUUM A




VACUUM B

VACUUM C

## Appendix P

## Let's Buy A Vacuum!

*Please answer the question below based on the information from the chart*

	VACUUM A	VACUUM B	VACUUM C
			
Description	Silencer X	Silencer Y	Silencer Z
Manufacturer	Electrolux	Electrolux	Electrolux
Amps	8.5 amps	9.5 amps	10.5 amps
Warranty	4 year	3 year	2 year

Which vacuum provides the best value for you? (*circle your answer*)

VACUUM A




VACUUM B

VACUUM C

## Appendix Q

## Let's Buy A Vacuum!

*Please answer the question below based on the information from the chart*

	VACUUM A	VACUUM B	VACUUM C
			
Description	Silencer X	Silencer Y	Silencer Z
Manufacturer	Electrolux	Electrolux	Electrolux
Amps	9.5 amps	10.5 amps	11.5 amps
Warranty	3 year	2 year	1 year

Which vacuum provides the best value for you? (*circle your answer*)

VACUUM A

VACUUM B

VACUUM C

## Appendix R

## Vacuum Survey

*Please answer the following statements by circling the number that best corresponds to how you feel about the statement for the Vacuum you have just chosen.*

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

1. I'm pretty sure I won't change my mind

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

2. I wish that I had more information when making my decision

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

3. I'm sure one of the products was more desirable to me than the other alternatives

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

4. My choice was easy to justify

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

5. I'm sure that I won't be disappointed in my choice

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

6. I'm certain about the performance of each alternative product

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---




7. I feel confident that I have all the information necessary for my decision

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

## Appendix S

## Let's Buy A Portable External Hard Drive!

*Please answer the question below based on the information from the chart*

	EXTERNAL HARD DRIVE A 	EXTERNAL HARD DRIVE B 	EXTERNAL HARD DRIVE C 
Description	My Passport X	My Passport Y	My Passport Z
Manufacturer	Western Digital	Western Digital	Western Digital
Storage Space	0.5 Terabytes (500 Gigabytes)	1 Terabyte (1000 Gigabytes)	1.5 Terabytes (1500 Gigabytes)
Price	\$64.99	\$79.99	\$94.99

Which portable external hard drive provides the best value for you? (*circle your answer*)

HARD DRIVE A

HARD DRIVE B




HARD DRIVE C



## Appendix T

## Let's Buy A Portable External Hard Drive!

*Please answer the question below based on the information from the chart*

	EXTERNAL HARD DRIVE A 	EXTERNAL HARD DRIVE B 	EXTERNAL HARD DRIVE C 
Description	My Passport X	My Passport Y	My Passport Z
Manufacturer	Western Digital	Western Digital	Western Digital
Storage Space	1 Terabyte (1000 Gigabytes)	1.5 Terabytes (1500 Gigabytes)	2 Terabytes (2000 Gigabytes)
Price	\$79.99	\$94.99	\$109.99

Which portable external hard drive provides the best value for you? (*circle your answer*)

HARD DRIVE A




HARD DRIVE B

HARD DRIVE C

## Appendix U

## Let's Buy A Portable External Hard Drive!

*Please answer the question below based on the information from the chart*

	EXTERNAL HARD DRIVE A 	EXTERNAL HARD DRIVE B 	EXTERNAL HARD DRIVE C 
Description	My Passport X	My Passport Y	My Passport Z
Manufacturer	Western Digital	Western Digital	Western Digital
Storage Space	1.5 Terabytes (1500 Gigabytes)	2 Terabytes (2000 Gigabytes)	2.5 Terabytes (2500 Gigabytes)
Price	\$94.99	\$109.99	\$124.99

Which portable external hard drive provides the best value for you? (*circle your answer*)

HARD DRIVE A

HARD DRIVE B

HARD DRIVE C

## Appendix V

## Portable External Hard Drive Survey

*Please answer the following statements by circling the number that best corresponds to how you feel about the statement for the Portable External Hard Drive you have just chosen.*

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

1. I'm pretty sure I won't change my mind

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

2. I wish that I had more information when making my decision

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

3. I'm sure one of the products was more desirable to me than the other alternatives

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

4. My choice was easy to justify

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

5. I'm sure that I won't be disappointed in my choice

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

6. I'm certain about the performance of each alternative product

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---




7. I feel confident that I have all the information necessary for my decision

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

## Appendix W

## Let's Buy A Lawn Mower!

*Please answer the question below based on the information from the chart*

	LAWN MOWER A	LAWN MOWER A	LAWN MOWER A
			
Description	Timecutter X	Timecutter Y	Timecutter Z
Manufacturer	Toro	Toro	Toro
Warranty	5 year	4 year	3 year
Horsepower	5 Horsepower	10 Horsepower	15 Horsepower

Which lawn mower provides the best value for you? *(circle your answer)*

LAWN MOWER A




LAWN MOWER B

LAWN MOWER C

## Appendix X

## Let's Buy A Lawn Mower!

*Please answer the question below based on the information from the chart*

	LAWN MOWER A	LAWN MOWER A	LAWN MOWER A
			
Description	Timecutter X	Timecutter Y	Timecutter Z
Manufacturer	Toro	Toro	Toro
Warranty	4 year	3 year	2 year
Horsepower	10 Horsepower	15 Horsepower	20 Horsepower

Which lawn mower provides the best value for you? *(circle your answer)*

LAWN MOWER A




LAWN MOWER B

LAWN MOWER C

## Appendix Y

## Let's Buy A Lawn Mower!

*Please answer the question below based on the information from the chart*

	LAWN MOWER A	LAWN MOWER A	LAWN MOWER A
			
Description	Timecutter X	Timecutter Y	Timecutter Z
Manufacturer	Toro	Toro	Toro
Warranty	3 year	2 year	1 year
Horsepower	15 Horsepower	20 Horsepower	25 Horsepower

Which lawn mower provides the best value for you? (*circle your answer*)

LAWN MOWER A

LAWN MOWER B

LAWN MOWER C

# Lawn Mower Survey

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>									<b>Strongly Agree</b>

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

0 1 2 3 4 5 6 7 8 9  
Strongly Disagree Strongly Agree

0 1 2 3 4 5 6 7 8 9  
Strongly Disagree Strongly Agree

0 1 2 3 4 5 6 7 8 9  
**Strongly Disagree** **Strongly Agree**

0 1 2 3 4 5 6 7 8 9  
Strongly Disagree Strongly Agree

0 1 2 3 4 5 6 7 8 9  
Strongly Disagree Strongly Agree

0 1 2 3 4 5 6 7 8 9  
Strongly Disagree Strongly Agree

## Appendix AA

## General Demographics

*Please answer the following questions by checking the option where applicable.*

1. What is your sex?

Male ☐

Female ☐

2. What is your age? \_\_\_\_\_

3. What is your relationship status?

Single ☐

Casually dating ☐

In a monogamous relationship ☐

Married ☐

4. How would you describe yourself? (Please check the one option that best describes you)

American Indian or Alaska Native ☐

Hawaiian or Other Pacific Islander ☐

Asian or Asian American ☐

Black or African American ☐

Hispanic or Latino ☐

White or European American ☐

Other \_\_\_\_\_

5. Do you currently have a job?

Yes

No

6. At what age did you first start working? \_\_\_\_\_

7. Estimated family income (if known)

< \$50,000 ☐

\$50,001- \$100,000 ☐

\$100,001 - \$150,000 ☐

\$150,001 - \$200,000 ☐

\$200,001 - \$250,000 ☐

> \$250,000 ☐



## Appendix BB

## Informed Consent

- I hereby consent to participate in Jeremy Wong's research study.
- I understand this research will involve participating in an experiment, as well as, completing three surveys.
- While I understand that the direct benefits of this research to society are not known, I have been told that I may learn more about consumer orientation.
- I understand that this survey will take about 30 minutes. I have been told that there are no known risks or discomforts related to participating in this research.
- I have been told that Jeremy Wong can be reached at [jwong1@conncoll.edu](mailto:jwong1@conncoll.edu).
- I understand that I may decline to answer any questions as I see fit, and that I may withdraw from the study without penalty at any time.
- I understand that no information or disclosed results will use my name or personal identity.
- I have been advised that I may contact the researcher who will answer any questions I may have about the purposes and procedures of this study.
- I understand that this study is not meant to gather information about specific individuals and that my responses will be combined with other participants' data for the purpose of statistical analyses.
- I consent to publication of the study results as long as the identity of all participants is protected. I understand that this research has been approved by the Connecticut College Human Subjects Institutional Review Boards (IRB)

- Concerns about any aspect of this study may be addressed to Professor Ann Devlin, Chairperson of the Connecticut College IRB (860-439-2333) or

[Ann.Devlin@conncoll.edu](mailto:Ann.Devlin@conncoll.edu)

---

I am at least 18 years of age, and I have read these explanations and assurances and voluntarily consent to participate in this research about consumer orientation.

Name (printed) \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

## Appendix CC

## Debriefing Form

First of all, thank you for completing my experiment and research surveys, as well as, participating in the study on consumer behavior. The compromise effect shows people will typically choose the middle option among an odd number of alternatives (three in the case of this study). I am studying how people typically choose compromise between the three options and choose the middle one. I expect to find among three groups which all had separate camera qualities and prices, the middle option will be chosen. Research of this kind can be used to help further understand behavioral economics, the compromise effect, and market strategies. Although compromise effect has been previously studied, there has been an addition in the experiment of keeping price, as well as qualities consist and evenly spaced. Please do not share this information with your peers until the end of the semester when the study has been completed.

If you are interested in this topic and would like to read literature in this area, please contact Jeremy Wong: [jwong1@conncoll.edu](mailto:jwong1@conncoll.edu). Any concerns about the manner in which this research was conducted should be reported to Professor Ann Devlin, Chairperson of the Connecticut College IRB (860-439-2333) or [Ann.Devlin@conncoll.edu](mailto:Ann.Devlin@conncoll.edu)

Listed on the back of this sheet are two sources you may want to consult to learn more about this topic:

- Simonson, I., & Tversky, A. (1992). Choice in context: Tradeoff contrast and extremeness aversion. *Journal of Marketing Research*, 29(3), 281-295. doi: 10.2307/3172740
- Sheng, S., Parker, A. M. & Nakamoto, K. (2005). Understanding the mechanism and determinants of compromise effects. *Psychology and Marketing*, 22(7), 591–609. doi: 10.1002/mar.2007

## Appendix DD

## Product Survey

*Please answer the following statements about specific products by circling the number that best corresponds to how you feel about the statement.*

**1 = Strongly Disagree**  
**2 = Disagree**  
**3 = Disagree Somewhat**  
**4 = Undecided**  
**5 = Agree Somewhat**  
**6 = Agree**  
**7 = Strongly Agree**

## 1. Digital Cameras

A. I am familiar with digital cameras

1      2      3      4      5      6      7

B. I am knowledgeable about the meaning of the price of a digital camera

1      2      3      4      5      6      7

C. I am knowledgeable about the meaning of the megapixels of a digital camera

1      2      3      4      5      6      7

## 2. Televisions (TVs)

A. I am familiar with TVs

1      2      3      4      5      6      7

B. I am knowledgeable about the meaning of the screen size of TVs

1      2      3      4      5      6      7

C. I am knowledgeable about the meaning of the resolution of TVs

1      2      3      4      5      6      7

## 3. Binoculars

A. I am familiar with binoculars

1      2      3      4      5      6      7

B. I am knowledgeable about the meaning of the magnification (zoom) of binoculars

1      2      3      4      5      6      7

**1 = Strongly Disagree**  
**2 = Disagree**  
**3 = Disagree Somewhat**  
**4 = Undecided**  
**5 = Agree Somewhat**  
**6 = Agree**  
**7 = Strongly Agree**

C. I am knowledgeable about the meaning of the price of binoculars

1      2      3      4      5      6      7

#### 4. Vacuums

A. I am familiar with vacuums

1      2      3      4      5      6      7

B. I am knowledgeable about the meaning of the warranty of vacuums

1      2      3      4      5      6      7

C. I am knowledgeable about the meaning of the amps of vacuums

1      2      3      4      5      6      7

#### 5. Portable External Hard Drives

A. I am familiar with portable external hard drives

1      2      3      4      5      6      7

B. I am knowledgeable about the meaning of the price of portable external hard drives

1      2      3      4      5      6      7

C. I am knowledgeable about the meaning of the gigabytes of portable external hard drives

1      2      3      4      5      6      7

#### 6. Lawn Mowers

A. I am familiar with lawn mowers

1      2      3      4      5      6      7

B. I am knowledgeable about the meaning of the horse-power of lawn mowers

1      2      3      4      5      6      7

C. I am knowledgeable about the meaning of the warranty of lawn mowers

1      2      3      4      5      6      7

**1 = Strongly Disagree**  
**2 = Disagree**  
**3 = Disagree Somewhat**  
**4 = Undecided**  
**5 = Agree Somewhat**  
**6 = Agree**  
**7 = Strongly Agree**

### 7. Washing Machines

A. I am familiar with washing machines

1      2      3      4      5      6      7

B. I am knowledgeable about the meaning of the tub capacity of washing machines

1      2      3      4      5      6      7

C. I am knowledgeable about the meaning of the price of washing machines

1      2      3      4      5      6      7

### 8. Surround Sound Speakers

A. I am familiar with surround sound speakers

1      2      3      4      5      6      7

B. I am knowledgeable about the meaning of the warranty of surround sound speakers

1      2      3      4      5      6      7

C. I am knowledgeable about the meaning of the price of surround sound speakers

1      2      3      4      5      6      7

### 9. Dishwashers

A. I am familiar with dishwashers

1      2      3      4      5      6      7

B. I am knowledgeable about the meaning of the number of wash cycle settings

1      2      3      4      5      6      7

C. I am knowledgeable about the meaning of the warranty of dishwashers

1      2      3      4      5      6      7

*1 = Strongly Disagree*  
*2 = Disagree*  
*3 = Disagree Somewhat*  
*4 = Undecided*  
*5 = Agree Somewhat*  
*6 = Agree*  
*7 = Strongly Agree*

## 10. Blender

A. I am familiar with Blenders

1      2      3      4      5      6      7

B. I am knowledgeable about the meaning of the number of speeds cycles of blenders

1      2      3      4      5      6      7

C. I am knowledgeable about the meaning of the price of blenders

1      2      3      4      5      6      7



## Appendix EE

## Attribute Survey

*Please answer the following statements about specific products by circling the number that best corresponds to how you feel about the statement.*

<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>
<b>Not Important</b>									<b>Very Important</b>	

---

## 1. Digital Cameras

C. If you were to buy a Digital Camera, how much would you value the **megapixels** as an attribute?

0	1	2	3	4	5	6	7	8	9	10
<b>Not Important</b>									<b>Very Important</b>	

D. If you were to buy a Digital Camera, how much would you value the **price** as an attribute?

0	1	2	3	4	5	6	7	8	9	10
<b>Not Important</b>									<b>Very Important</b>	

---

## 2. Televisions (TVs)

C. If you were to buy a TV, how much would you value the **screen size** as an attribute?

0	1	2	3	4	5	6	7	8	9	10
<b>Not Important</b>									<b>Very Important</b>	

D. If you were to buy a TV, how much would you value the **resolution** as an attribute?

0	1	2	3	4	5	6	7	8	9	10
<b>Not Important</b>									<b>Very Important</b>	

---

0      1      2      3      4      5      6      7      8      9      10  
*Not Important* *Very Important*

---

## 3. Binoculars

C. If you were to buy a pair of Binoculars, how much would you value the **magnification** as an attribute?

0      1      2      3      4      5      6      7      8      9      10  
**Not Important** **Very Important**

D. If you were to buy a pair of Binoculars, how much would you value the **price** as an attribute?

0      1      2      3      4      5      6      7      8      9      10  
**Not Important** **Very Important**

---

## 4. Vacuums

C. If you were to buy a Vacuum, how much would you value the **amps** as an attribute?

0      1      2      3      4      5      6      7      8      9      10  
**Not Important** **Very Important**

D. If you were to buy a Vacuum, how much would you value the **warranty** as an attribute?

0      1      2      3      4      5      6      7      8      9      10  
**Not Important** **Very Important**

---

## 5. Portable External Hard Drives

C. If you were to buy a Portable External Hard Drive, how much would you value the **storage space** as an attribute?

0      1      2      3      4      5      6      7      8      9      10  
**Not Important** **Very Important**

0      1      2      3      4      5      6      7      8      9      10  
*Not Important* *Very Important*

D. If you were to buy a Portable External Hard Drive, how much would you value the **price** as an attribute?

0      1      2      3      4      5      6      7      8      9      10  
**Not Important** **Very Important**

---

#### 6. Lawn Mowers

C. If you were to buy a Lawn Mower, how much would you value the **warranty** as an attribute?

0      1      2      3      4      5      6      7      8      9      10  
**Not Important** **Very Important**

D. If you were to buy a Lawn Mower, how much would you value the **horsepower** as an attribute?

0      1      2      3      4      5      6      7      8      9      10  
**Not Important** **Very Important**

---

#### 7. Washing Machines

A. If you were to buy a Washing Machine, how much would you value the **tub capacity** as an attribute?

0      1      2      3      4      5      6      7      8      9      10  
**Not Important** **Very Important**

B. If you were to buy a Washing Machine, how much would you value the **price** as an attribute?

0      1      2      3      4      5      6      7      8      9      10  
**Not Important** **Very Important**

---

<i><b>0</b></i>	<i><b>1</b></i>	<i><b>2</b></i>	<i><b>3</b></i>	<i><b>4</b></i>	<i><b>5</b></i>	<i><b>6</b></i>	<i><b>7</b></i>	<i><b>8</b></i>	<i><b>9</b></i>	<i><b>10</b></i>
<i><b>Not Important</b></i>					<i><b>Very Important</b></i>					

---

## 8. Surround Sound Speakers

A. If you were to buy Surround Sound Speakers, how much would you value the **warranty** as an attribute?

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

**Not Important****Very Important**

B. If you were to buy a Surround Sound Speakers, how much would you value the **price** as an attribute?

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

**Not Important****Very Important**

## 9. Dishwashers

A. If you were to buy a Dishwasher, how much would you value the **number of spin cycles settings** as an attribute?

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

**Not Important****Very Important**

B. If you were to buy a Dishwasher, how much would you value the **warranty** as an attribute?

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

**Not Important****Very Important**

0      1      2      3      4      5      6      7      8      9      10  
*Not Important* *Very Important*

---

10. Blender

A. If you were to buy a Blender, how much would you value the **number of speeds** as an attribute?

0      1      2      3      4      5      6      7      8      9      10  
**Not Important** **Very Important**

B. If you were to buy a Blender, how much would you value the **price** as an attribute?

0      1      2      3      4      5      6      7      8      9      10  
**Not Important** **Very Important**

---

## Appendix FF

## Let's Buy a Camera!

*Please answer the question below based on the information from the chart*

	CAMERA A	CAMERA B
		
Description	EOS Rebel X	EOS Rebel Y
Manufacturer	Canon	Canon
Megapixels	9.2 Megapixels	12.2 Megapixels
Price	\$439.99	\$489.99

Which camera provides the best value for you? (*circle your answer*)

CAMERA A

CAMERA B

## Appendix GG

## Let's Buy a Camera!

*Please answer the question below based on the information from the chart*

	CAMERA A	CAMERA B
		
Description	EOS Rebel X	EOS Rebel Y
Manufacturer	Canon	Canon
Megapixels	12.2 Megapixels	15.2 Megapixels
Price	\$489.99	\$539.99

Which camera provides the best value for you? (*circle your answer*)

CAMERA A

CAMERA B

## Appendix HH

## Let's Buy a Camera!

*Please answer the question below based on the information from the chart*

	CAMERA A	CAMERA B	CAMERA C
			
Description	EOS Rebel X	EOS Rebel Y	EOS Rebel Z
Manufacturer	Canon	Canon	Canon
Megapixels	9.2 Megapixels	12.2 Megapixels	15.2 Megapixels
Price	\$439.99	\$489.99	\$539.99

Which camera provides the best value for you? (*circle your answer*)

CAMERA A

CAMERA B

CAMERA C



## Appendix II

## Let's Buy a Camera!

*Please answer the question below based on the information from the chart*

	CAMERA A	CAMERA B	CAMERA C
			
Description	EOS Rebel X	EOS Rebel Y	EOS Rebel Z
Manufacturer	Canon	Canon	Canon
Megapixels	9.2 Megapixels	12.2 Megapixels	15.2 Megapixels
Price	\$439.99	\$489.99	\$539.99

Which camera provides the best value for you? (*circle your answer*)

CAMERA B

CAMERA C

## Appendix JJ

## Let's Buy a Camera!

*Please answer the question below based on the information from the chart*

	CAMERA A	CAMERA B	CAMERA C
			
Description	EOS Rebel X	EOS Rebel Y	EOS Rebel Z
Manufacturer	Canon	Canon	Canon
Megapixels	9.2 Megapixels	12.2 Megapixels	15.2 Megapixels
Price	\$439.99	\$489.99	\$539.99

Which camera provides the best value for you? (*circle your answer*)

CAMERA A

CAMERA C

## Appendix KK

Let's Buy a Camera!

*Please answer the question below based on the information from the chart*

	CAMERA A	CAMERA B	CAMERA C
			
Description	EOS Rebel X	EOS Rebel Y	EOS Rebel Z
Manufacturer	Canon	Canon	Canon
Megapixels	9.2 Megapixels	12.2 Megapixels	15.2 Megapixels
Price	\$439.99	\$489.99	\$539.99

Which camera provides the best value for you? (*circle your answer*)

CAMERA A



CAMERA B



## Appendix MM

## Let's Buy a TV!

*Please answer the question below based on the information from the chart*

	TELEVISION A	TELEVISION B
		
Description	Sony Ultra X	Sony Ultra Y
Manufacturer	Sony	Sony
Screen Size	27"	30"
Resolution	1440 x 900	1600 x 1080

Which TV provides the best value for you? (*circle your answer*)



TELEVISION A

TELEVISION B

## Appendix NN

## Let's Buy a TV!

*Please answer the question below based on the information from the chart*

	TELEVISION A	TELEVISION B
		
Description	Sony Ultra X	Sony Ultra Y
Manufacturer	Sony	Sony
Screen Size	30"	33"
Resolution	1600 x 1080	1760 x 1260

Which TV provides the best value for you? (*circle your answer*)




TELEVISION A

TELEVISION B

## Appendix OO

## Let's Buy a TV!

*Please answer the question below based on the information from the chart*

	TELEVISION A	TELEVISION B	TELEVISION C
			
Description	Sony Ultra X	Sony Ultra Y	Sony Ultra Z
Manufacturer	Sony	Sony	Sony
Screen Size	27"	30"	33"
Resolution	1440 x 900	1600 x 1080	1760 x 1260

Which TV provides the best value for you? (*circle your answer*)

TELEVISION A




TELEVISION B

TELEVISION C

## Appendix PP

## Let's Buy a TV!

*Please answer the question below based on the information from the chart*

	TELEVISION A	TELEVISION B	TELEVISION C
			
Description	Sony Ultra X	Sony Ultra Y	Sony Ultra Z
Manufacturer	Sony	Sony	Sony
Screen Size	30"	33"	36"
Resolution	1600 x 1080	1760 x 1260	1920 x 1440

Which TV provides the best value for you? (*circle your answer*)

TELEVISION B




TELEVISION C



## Appendix QQ

## Let's Buy a TV!

*Please answer the question below based on the information from the chart*

	TELEVISION A	TELEVISION B	TELEVISION C
			
Description	Sony Ultra X	Sony Ultra Y	Sony Ultra Z
Manufacturer	Sony	Sony	Sony
Screen Size	30"	33"	36"
Resolution	1600 x 1080	1760 x 1260	1920 x 1440

Which TV provides the best value for you? (*circle your answer*)




TELEVISION A

TELEVISION C

## Appendix RR

## Let's Buy a TV!

*Please answer the question below based on the information from the chart*

	TELEVISION A	TELEVISION B	TELEVISION C
			
Description	Sony Ultra X	Sony Ultra Y	Sony Ultra Z
Manufacturer	Sony	Sony	Sony
Screen Size	30"	33"	36"
Resolution	1600 x 1080	1760 x 1260	1920 x 1440

Which TV provides the best value for you? (*circle your answer*)

TELEVISION A

TELEVISION B

## Appendix SS

## Television Survey

*Please answer the following statements by circling the number that best corresponds to how you feel about the statement for the Television you have just chosen.*

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

1. I'm pretty sure I won't change my mind

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

2. I wish that I had more information when making my decision

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

3. I'm sure one of the products was more desirable to me than the other alternatives

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

4. My choice was easy to justify

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

5. I'm sure that I won't be disappointed in my choice

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

6. I'm certain about the performance of each alternative product

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

7. I feel confident that I have all the information necessary for my decision

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

## Appendix TT

## Let's Buy A Pair of Binoculars!

*Please answer the question below based on the information from the chart*

	BINOCULAR A	BINOCULAR B
		
Description	Trailblazer X	Trailblazer Y
Manufacturer	Nikon	Nikon
Magnification	15x	20x
Price	\$113.95	\$153.95

Which binocular provides the best value for you? (*circle your answer*)

BINOCULAR A

BINOCULAR B

## Appendix UU

## Let's Buy A Pair of Binoculars!

*Please answer the question below based on the information from the chart*

	BINOCULAR A	BINOCULAR B
		
Description	Trailblazer X	Trailblazer Y
Manufacturer	Nikon	Nikon
Magnification	20x	25x
Price	\$153.95	\$193.95

Which binocular provides the best value for you? (*circle your answer*)

BINOCULAR A

BINOCULAR B

## Appendix VV

## Let's Buy A Pair of Binoculars!

*Please answer the question below based on the information from the chart*

	BINOCULAR A	BINOCULAR B	BINOCULAR C
			
Description	Trailblazer X	Trailblazer Y	Trailblazer Z
Manufacturer	Nikon	Nikon	Nikon
Magnification	15x	20x	25x
Price	\$113.95	\$153.95	\$193.95

Which binocular provides the best value for you? (*circle your answer*)

BINOCULAR A

BINOCULAR B

BINOCULAR C

## Appendix WW

## Let's Buy A Pair of Binoculars!

*Please answer the question below based on the information from the chart*

	BINOCULAR A	BINOCULAR B	BINOCULAR C
			
Description	Trailblazer X	Trailblazer Y	Trailblazer Z
Manufacturer	Nikon	Nikon	Nikon
Magnification	15x	20x	25x
Price	\$113.95	\$153.95	\$193.95

Which binocular provides the best value for you? (*circle your answer*)

BINOCULAR B

BINOCULAR C

## Appendix XX

## Let's Buy A Pair of Binoculars!

*Please answer the question below based on the information from the chart*

	BINOCULAR A	BINOCULAR B	BINOCULAR C
		 <b>SOLD OUT</b>	
Description	Trailblazer X	Trailblazer Y	Trailblazer Z
Manufacturer	Nikon	Nikon	Nikon
Magnification	15x	20x	25x
Price	\$113.95	\$153.95	\$193.95

Which binocular provides the best value for you? (*circle your answer*)

BINOCULAR A

BINOCULAR C



## Appendix YY

## Let's Buy A Pair of Binoculars!

*Please answer the question below based on the information from the chart*

	BINOCULAR A	BINOCULAR B	BINOCULAR C
			
Description	Trailblazer X	Trailblazer Y	Trailblazer Z
Manufacturer	Nikon	Nikon	Nikon
Magnification	15x	20x	25x
Price	\$113.95	\$153.95	\$193.95

Which binocular provides the best value for you? (*circle your answer*)

BINOCULAR A

BINOCULAR B

## Appendix ZZ

## Binocular Survey

*Please answer the following statements by circling the number that best corresponds to how you feel about the statement for the pair of Binoculars you have just chosen.*

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

1. I'm pretty sure I won't change my mind

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

2. I wish that I had more information when making my decision

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

3. I'm sure one of the products was more desirable to me than the other alternatives

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

4. My choice was easy to justify

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

5. I'm sure that I won't be disappointed in my choice

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

6. I'm certain about the performance of each alternative product

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---



7. I feel confident that I have all the information necessary for my decision

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

## Appendix AAA

## Let's Buy A Vacuum!

*Please answer the question below based on the information from the chart*

	VACUUM A	VACUUM B
		
Description	Silencer X	Silencer Y
Manufacturer	Electrolux	Electrolux
Amps	8.5 amps	9.5 amps
Warranty	4 year	3 year

Which vacuum provides the best value for you? (*circle your answer*)



VACUUM A

VACUUM B

## Appendix BBB

## Let's Buy A Vacuum!

*Please answer the question below based on the information from the chart*

	VACUUM A	VACUUM B
		
Description	Silencer X	Silencer Y
Manufacturer	Electrolux	Electrolux
Amps	9.5 amps	10.5 amps
Warranty	3 year	2 year

Which vacuum provides the best value for you? (*circle your answer*)




VACUUM A

VACUUM B

## Appendix CCC

## Let's Buy A Vacuum!

*Please answer the question below based on the information from the chart*

	VACUUM A	VACUUM B	VACUUM C
			
Description	Silencer X	Silencer Y	Silencer Z
Manufacturer	Electrolux	Electrolux	Electrolux
Amps	8.5 amps	9.5 amps	10.5 amps
Warranty	4 year	3 year	2 year

Which vacuum provides the best value for you? (*circle your answer*)

VACUUM A




VACUUM B

VACUUM C

## Appendix DDD

## Let's Buy A Vacuum!

*Please answer the question below based on the information from the chart*

	VACUUM A	VACUUM B	VACUUM C
			
Description	Silencer X	Silencer Y	Silencer Z
Manufacturer	Electrolux	Electrolux	Electrolux
Amps	8.5 amps	9.5 amps	10.5 amps
Warranty	4 year	3 year	2 year

Which vacuum provides the best value for you? (*circle your answer*)




VACUUM B

VACUUM C

## Appendix EEE

## Let's Buy A Vacuum!

*Please answer the question below based on the information from the chart*

	VACUUM A	VACUUM B	VACUUM C
			
Description	Silencer X	Silencer Y	Silencer Z
Manufacturer	Electrolux	Electrolux	Electrolux
Amps	8.5 amps	9.5 amps	10.5 amps
Warranty	4 year	3 year	2 year

Which vacuum provides the best value for you? (*circle your answer*)




VACUUM A

VACUUM C

## Appendix FFF

## Let's Buy A Vacuum!

*Please answer the question below based on the information from the chart*

	VACUUM A	VACUUM B	VACUUM C
			 <b>SOLD OUT</b>
Description	Silencer X	Silencer Y	Silencer Z
Manufacturer	Electrolux	Electrolux	Electrolux
Amps	8.5 amps	9.5 amps	10.5 amps
Warranty	4 year	3 year	2 year

Which vacuum provides the best value for you? (*circle your answer*)

VACUUM A

VACUUM B



## Appendix GGG

## Vacuum Survey

*Please answer the following statements by circling the number that best corresponds to how you feel about the statement for the Vacuum you have just chosen.*

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

1. I'm pretty sure I won't change my mind

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

2. I wish that I had more information when making my decision

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

3. I'm sure one of the products was more desirable to me than the other alternatives

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

4. My choice was easy to justify

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

5. I'm sure that I won't be disappointed in my choice

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

6. I'm certain about the performance of each alternative product

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---



7. I feel confident that I have all the information necessary for my decision

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

## Appendix HHH

## Let's Buy A Portable External Hard Drive!

*Please answer the question below based on the information from the chart*

	EXTERNAL HARD DRIVE A 	EXTERNAL HARD DRIVE B 
Description	My Passport X	My Passport Y
Manufacturer	Western Digital	Western Digital
Storage Space	1 Terabyte (1000 Gigabytes)	1.5 Terabytes (1500 Gigabytes)
Price	\$79.99	\$94.99

Which portable external hard drive provides the best value for you? (*circle your answer*)



HARD DRIVE A

HARD DRIVE B

## Appendix III

## Let's Buy A Portable External Hard Drive!

*Please answer the question below based on the information from the chart*

	EXTERNAL HARD DRIVE A 	EXTERNAL HARD DRIVE B 
Description	My Passport X	My Passport Y
Manufacturer	Western Digital	Western Digital
Storage Space	1.5 Terabytes (1500 Gigabytes)	2 Terabytes (2000 Gigabytes)
Price	\$94.99	\$109.99

Which portable external hard drive provides the best value for you? (*circle your answer*)




HARD DRIVE A

HARD DRIVE B

## Appendix JJJ

## Let's Buy A Portable External Hard Drive!

*Please answer the question below based on the information from the chart*

	EXTERNAL HARD DRIVE A 	EXTERNAL HARD DRIVE B 	EXTERNAL HARD DRIVE C 
Description	My Passport X	My Passport Y	My Passport Z
Manufacturer	Western Digital	Western Digital	Western Digital
Storage Space	1 Terabyte (1000 Gigabytes)	1.5 Terabytes (1500 Gigabytes)	2 Terabytes (2000 Gigabytes)
Price	\$79.99	\$94.99	\$109.99

Which portable external hard drive provides the best value for you? (*circle your answer*)

HARD DRIVE A




HARD DRIVE B

HARD DRIVE C

## Appendix KKK

## Let's Buy A Portable External Hard Drive!

*Please answer the question below based on the information from the chart*

	EXTERNAL HARD DRIVE A  <b>SOLD OUT</b>	EXTERNAL HARD DRIVE B 	EXTERNAL HARD DRIVE C 
Description	My Passport X	My Passport Y	My Passport Z
Manufacturer	Western Digital	Western Digital	Western Digital
Storage Space	1 Terabyte (1000 Gigabytes)	1.5 Terabytes (1500 Gigabytes)	2 Terabytes (2000 Gigabytes)
Price	\$79.99	\$94.99	\$109.99

Which portable external hard drive provides the best value for you? (*circle your answer*)




HARD DRIVE B

HARD DRIVE C

## Appendix LLL

## Let's Buy A Portable External Hard Drive!

*Please answer the question below based on the information from the chart*

	EXTERNAL HARD DRIVE A 	EXTERNAL HARD DRIVE B  <b>SOLD OUT</b>	EXTERNAL HARD DRIVE C 
Description	My Passport X	My Passport Y	My Passport Z
Manufacturer	Western Digital	Western Digital	Western Digital
Storage Space	1 Terabyte (1000 Gigabytes)	1.5 Terabytes (1500 Gigabytes)	2 Terabytes (2000 Gigabytes)
Price	\$79.99	\$94.99	\$109.99

Which portable external hard drive provides the best value for you? (*circle your answer*)




HARD DRIVE A

HARD DRIVE C

## Appendix MMM

## Let's Buy A Portable External Hard Drive!

*Please answer the question below based on the information from the chart*

	EXTERNAL HARD DRIVE A 	EXTERNAL HARD DRIVE B 	EXTERNAL HARD DRIVE C  <b>SOLD OUT</b>
Description	My Passport X	My Passport Y	My Passport Z
Manufacturer	Western Digital	Western Digital	Western Digital
Storage Space	1 Terabyte (1000 Gigabytes)	1.5 Terabytes (1500 Gigabytes)	2 Terabytes (2000 Gigabytes)
Price	\$79.99	\$94.99	\$109.99

Which portable external hard drive provides the best value for you? (*circle your answer*)

HARD DRIVE A

HARD DRIVE B

## Appendix NNN

## Portable External Hard Drive Survey

*Please answer the following statements by circling the number that best corresponds to how you feel about the statement for the Portable External Hard Drive you have just chosen.*

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

1. I'm pretty sure I won't change my mind

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

2. I wish that I had more information when making my decision

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

3. I'm sure one of the products was more desirable to me than the other alternatives

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

4. My choice was easy to justify

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

5. I'm sure that I won't be disappointed in my choice

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

6. I'm certain about the performance of each alternative product

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

7. I feel confident that I have all the information necessary for my decision



<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		



## Appendix OOO

## Let's Buy A Lawn Mower!

*Please answer the question below based on the information from the chart*

	LAWN MOWER A	LAWN MOWER B
		
Description	Timecutter X	Timecutter Y
Manufacturer	Toro	Toro
Warranty	4 year	3 year
Horsepower	10 Horsepower	15 Horsepower

Which lawn mower provides the best value for you? (*circle your answer*)



LAWN MOWER A

LAWN MOWER B

## Appendix PPP

## Let's Buy A Lawn Mower!

*Please answer the question below based on the information from the chart*

	LAWN MOWER A	LAWN MOWER B
		
Description	Timecutter X	Timecutter Y
Manufacturer	Toro	Toro
Warranty	3 year	2 year
Horsepower	15 Horsepower	20 Horsepower

Which lawn mower provides the best value for you? (*circle your answer*)




LAWN MOWER A

LAWN MOWER B

## Appendix QQQ

## Let's Buy A Lawn Mower!

*Please answer the question below based on the information from the chart*

	LAWN MOWER A	LAWN MOWER B	LAWN MOWER C
			
Description	Timecutter X	Timecutter Y	Timecutter Z
Manufacturer	Toro	Toro	Toro
Warranty	4 year	3 year	2 year
Horsepower	10 Horsepower	15 Horsepower	20 Horsepower

Which lawn mower provides the best value for you? *(circle your answer)*

LAWN MOWER A




LAWN MOWER B

LAWN MOWER C

## Appendix RRR

## Let's Buy A Lawn Mower!

*Please answer the question below based on the information from the chart*

	LAWN MOWER A	LAWN MOWER B	LAWN MOWER C
			
Description	Timecutter X	Timecutter Y	Timecutter Z
Manufacturer	Toro	Toro	Toro
Warranty	4 year	3 year	2 year
Horsepower	10 Horsepower	15 Horsepower	20 Horsepower

Which lawn mower provides the best value for you? (*circle your answer*)




LAWN MOWER B

LAWN MOWER C

## Appendix SSS

## Let's Buy A Lawn Mower!

*Please answer the question below based on the information from the chart*

	LAWN MOWER A	LAWN MOWER B	LAWN MOWER C
			
Description	Timecutter X	Timecutter Y	Timecutter Z
Manufacturer	Toro	Toro	Toro
Warranty	4 year	3 year	2 year
Horsepower	10 Horsepower	15 Horsepower	20 Horsepower

Which lawn mower provides the best value for you? *(circle your answer)*




LAWN MOWER A

LAWN MOWER C

## Appendix TTT

## Let's Buy A Lawn Mower!

*Please answer the question below based on the information from the chart*

	LAWN MOWER A	LAWN MOWER B	LAWN MOWER C
			
Description	Timecutter X	Timecutter Y	Timecutter Z
Manufacturer	Toro	Toro	Toro
Warranty	4 year	3 year	2 year
Horsepower	10 Horsepower	15 Horsepower	20 Horsepower

Which lawn mower provides the best value for you? *(circle your answer)*

LAWN MOWER A

LAWN MOWER B

## Appendix UUU

## Lawn Mower Survey

*Please answer the following statements by circling the number that best corresponds to how you feel about the statement for the Lawn Mower you have just chosen.*

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

1. I'm pretty sure I won't change my mind

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

2. I wish that I had more information when making my decision

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

3. I'm sure one of the products was more desirable to me than the other alternatives

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

4. My choice was easy to justify

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

5. I'm sure that I won't be disappointed in my choice

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

6. I'm certain about the performance of each alternative product

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

---

7. I feel confident that I have all the information necessary for my decision

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>								<b>Strongly Agree</b>	

## Appendix VVV

## Let's Buy A Washing Machine!

*Please answer the question below based on the information from the chart*

	<b>WASHING MACHINE A</b> 	<b>WASHING MACHINE B</b> 
Description	Washer X	Washer Y
Manufacturer	LG	LG
Tub Capacity	3.2 cubic feet	3.7 cubic feet
Price	\$613.99	\$673.99

Which washing machine provides the best value for you? (*circle your answer*)

WASHING MACHINE A


WASHING MACHINE B



## Appendix WWW

## Let's Buy A Washing Machine!

*Please answer the question below based on the information from the chart*

	<div>WASHING MACHINE A</div> 	<div>WASHING MACHINE B</div> 
Description	Washer X	Washer Y
Manufacturer	LG	LG
Tub Capacity	3.7 cubic feet	4.2 cubic feet
Price	\$673.99	\$733.99

Which washing machine provides the best value for you? (*circle your answer*)

WASHING MACHINE A

WASHING MACHINE B

## Appendix XXX

## Let's Buy A Washing Machine!

*Please answer the question below based on the information from the chart*

	WASHING MACHINE A 	WASHING MACHINE B 	WASHING MACHINE C 
Description	Washer X	Washer Y	Washer Z
Manufacturer	LG	LG	LG
Tub Capacity	3.2 cubic feet	3.7 cubic feet	4.2 cubic feet
Price	\$613.99	\$673.99	\$733.99

Which washing machine provides the best value for you? (*circle your answer*)

WASHING MACHINE A    WASHING MACHINE B    WASHING MACHINE C

## Appendix YYY

## Let's Buy A Washing Machine!

*Please answer the question below based on the information from the chart*

	WASHING MACHINE A  <b>SOLD OUT</b>	WASHING MACHINE B 	WASHING MACHINE C 
Description	Washer X	Washer Y	Washer Z
Manufacturer	LG	LG	LG
Tub Capacity	3.2 cubic feet	3.7 cubic feet	4.2 cubic feet
Price	\$613.99	\$673.99	\$733.99

Which washing machine provides the best value for you? (*circle your answer*)

WASHING MACHINE B

WASHING MACHINE C

## Appendix ZZZ

## Let's Buy A Washing Machine!

*Please answer the question below based on the information from the chart*

	WASHING MACHINE A 	WASHING MACHINE C  <b>SOLD OUT</b>	WASHING MACHINE B 
Description	Washer X	Washer Y	Washer Z
Manufacturer	LG	LG	LG
Tub Capacity	3.2 cubic feet	3.7 cubic feet	4.2 cubic feet
Price	\$613.99	\$673.99	\$733.99

Which washing machine provides the best value for you? (*circle your answer*)

WASHING MACHINE A

WASHING MACHINE C

## Appendix AAAA

## Let's Buy A Washing Machine!

*Please answer the question below based on the information from the chart*

	WASHING MACHINE A 	WASHING MACHINE B 	WASHING MACHINE C  <b>SOLD OUT</b>
Description	Washer X	Washer Y	Washer Z
Manufacturer	LG	LG	LG
Tub Capacity	3.2 cubic feet	3.7 cubic feet	4.2 cubic feet
Price	\$613.99	\$673.99	\$733.99

Which washing machine provides the best value for you? (*circle your answer*)

WASHING MACHINE A

WASHING MACHINE B

## Appendix BBBB

## Washing Machine Survey

*Please answer the following statements by circling the number that best corresponds to how you feel about the statement for the Washing Machine you have just chosen.*

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

1. I'm pretty sure I won't change my mind

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

2. I wish that I had more information when making my decision

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

3. I'm sure one of the products was more desirable to me than the other alternatives

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

4. My choice was easy to justify

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

5. I'm sure that I won't be disappointed in my choice

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

6. I'm certain about the performance of each alternative product

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---



7. I feel confident that I have all the information necessary for my decision

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

## Appendix CCCC

## Let's Buy Surround Sound Speakers!

*Please answer the question below based on the information from the chart*

	SPEAKER A	SPEAKER B
		
Description	Pro Cinema X	Pro Cinema Y
Manufacturer	Definitive Technology	Definitive Technology
Warranty	3 year	2 year
Price	\$569.99	\$619.99

Which surround sound speaker provides the best value for you? (*circle your answer*)



SPEAKER A

SPEAKER B

## Appendix DDDD

## Let's Buy Surround Sound Speakers!

*Please answer the question below based on the information from the chart*

	SPEAKER A	SPEAKER B
		
Description	Pro Cinema X	Pro Cinema Y
Manufacturer	Definitive Technology	Definitive Technology
Warranty	2 year	1 year
Price	\$619.99	\$669.99

Which surround sound speaker provides the best value for you? (*circle your answer*)

SPEAKER A




SPEAKER B



## Appendix EEEE

## Let's Buy Surround Sound Speakers!

*Please answer the question below based on the information from the chart*

	SPEAKER A	SPEAKER B	SPEAKER C
			
Description	Pro Cinema X	Pro Cinema Y	Pro Cinema Z
Manufacturer	Definitive Technology	Definitive Technology	Definitive Technology
Warranty	3 year	2 year	1 year
Price	\$569.99	\$619.99	\$669.99

Which surround sound speaker provides the best value for you? (*circle your answer*)

SPEAKER A




SPEAKER B

SPEAKER C

## Appendix FFFF

Let's Buy Surround Sound Speakers!

*Please answer the question below based on the information from the chart*

	SPEAKER A	SPEAKER B	SPEAKER C
			
Description	Pro Cinema X	Pro Cinema Y	Pro Cinema Z
Manufacturer	Definitive Technology	Definitive Technology	Definitive Technology
Warranty	3 year	2 year	1 year
Price	\$569.99	\$619.99	\$669.99

Which surround sound speaker provides the best value for you? (*circle your answer*)




SPEAKER B

SPEAKER C

## Appendix GGGG

## Let's Buy Surround Sound Speakers!

*Please answer the question below based on the information from the chart*

	SPEAKER A	SPEAKER B	SPEAKER C
			
Description	Pro Cinema X	Pro Cinema Y	Pro Cinema Z
Manufacturer	Definitive Technology	Definitive Technology	Definitive Technology
Warranty	3 year	2 year	1 year
Price	\$569.99	\$619.99	\$669.99

Which surround sound speaker provides the best value for you? (*circle your answer*)




SPEAKER A

SPEAKER C

## Appendix HHHH

Let's Buy Surround Sound Speakers!

*Please answer the question below based on the information from the chart*

	SPEAKER A	SPEAKER B	SPEAKER C
			
Description	Pro Cinema X	Pro Cinema Y	Pro Cinema Z
Manufacturer	Definitive Technology	Definitive Technology	Definitive Technology
Warranty	3 year	2 year	1 year
Price	\$569.99	\$619.99	\$669.99

Which surround sound speaker provides the best value for you? (*circle your answer*)

SPEAKER A

SPEAKER B

## Appendix III

## Surround Sound Speakers Survey

*Please answer the following statements by circling the number that best corresponds to how you feel about the statement for the Speakers you have just chosen.*

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

1. I'm pretty sure I won't change my mind

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

2. I wish that I had more information when making my decision

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

3. I'm sure one of the products was more desirable to me than the other alternatives

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

4. My choice was easy to justify

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

5. I'm sure that I won't be disappointed in my choice

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

6. I'm certain about the performance of each alternative product

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---



7. I feel confident that I have all the information necessary for my decision

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

## Appendix JJJ

## Let's Buy A Dishwasher!

*Please answer the question below based on the information from the chart*

	DISHWASHER A	DISHWASHER B
		
Description	Stainless Steel X	Stainless Steel Y
Manufacturer	KitchenAid	KitchenAid
Number of Spin Cycle Settings	4 settings	5 settings
Warranty	3 years	2 years

Which dishwasher provides the best value for you? (*circle your answer*)



DISHWASHER A

DISHWASHER B

## Appendix KKKK

## Let's Buy A Dishwasher!

*Please answer the question below based on the information from the chart*

	DISHWASHER A	DISHWASHER B
		
Description	Stainless Steel X	Stainless Steel Y
Manufacturer	KitchenAid	KitchenAid
Number of Spin Cycle Settings	5 settings	6 settings
Warranty	2 years	1 years

Which dishwasher provides the best value for you? (*circle your answer*)




DISHWASHER A

DISHWASHER B

## Appendix LLLL

## Let's Buy A Dishwasher!

*Please answer the question below based on the information from the chart*

	DISHWASHER A	DISHWASHER B	DISHWASHER C
			
Description	Stainless Steel X	Stainless Steel Y	Stainless Steel Z
Manufacturer	KitchenAid	KitchenAid	KitchenAid
Number of Spin Cycle Settings	4 settings	5 settings	6 settings
Warranty	3 years	2 years	1 year

Which dishwasher provides the best value for you? (*circle your answer*)

DISHWASHER A

DISHWASHER B

DISHWASHER C



## Appendix MMMM

## Let's Buy A Dishwasher!

*Please answer the question below based on the information from the chart*

	DISHWASHER A	DISHWASHER A	DISHWASHER B
			
Description	Stainless Steel X	Stainless Steel Y	Stainless Steel Z
Manufacturer	KitchenAid	KitchenAid	KitchenAid
Number of Spin Cycle Settings	4 settings	5 settings	6 settings
Warranty	3 years	2 years	1 year

Which dishwasher provides the best value for you? (*circle your answer*)

DISHWASHER B

DISHWASHER C

## Appendix NNNN

## Let's Buy A Dishwasher!

*Please answer the question below based on the information from the chart*

	DISHWASHER A	DISHWASHER B	DISHWASHER C
			
Description	Stainless Steel X	Stainless Steel Y	Stainless Steel Z
Manufacturer	KitchenAid	KitchenAid	KitchenAid
Number of Spin Cycle Settings	4 settings	5 settings	6 settings
Warranty	3 years	2 years	1 year

Which dishwasher provides the best value for you? (*circle your answer*)



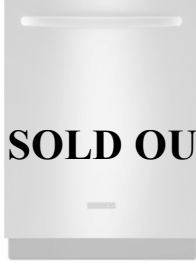
DISHWASHER A

DISHWASHER C

## Appendix OOOO

## Let's Buy A Dishwasher!

*Please answer the question below based on the information from the chart*

	DISHWASHER A	DISHWASHER B	DISHWASHER C
			
Description	Stainless Steel X	Stainless Steel X	Stainless Steel Y
Manufacturer	KitchenAid	KitchenAid	KitchenAid
Number of Speeds	4 settings	5 settings	6 settings
Warranty	3 years	2 years	1 year

Which dishwasher provides the best value for you? (*circle your answer*)

DISHWASHER A

DISHWASHER B

## Appendix PPPP

## Dishwasher Survey

*Please answer the following statements by circling the number that best corresponds to how you feel about the statement for the Dishwasher you have just chosen.*

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

1. I'm pretty sure I won't change my mind

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

2. I wish that I had more information when making my decision

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

3. I'm sure one of the products was more desirable to me than the other alternatives

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

4. My choice was easy to justify

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

5. I'm sure that I won't be disappointed in my choice

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

6. I'm certain about the performance of each alternative product

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

7. I feel confident that I have all the information necessary for my decision

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

## Appendix QQQQ

## Let's Buy A Blender!

*Please answer the question below based on the information from the chart*

	BLENDER A	BLENDER B
		
Description	Ninja X	Ninja Y
Manufacturer	EuroPro	EuroPro
Number of Speeds	4 Speeds	5 Speeds
Price	\$69.99	\$99.99

Which blender provides the best value for you? (*circle your answer*)

BLENDER A

BLENDER B

## Appendix RRRR

## Let's Buy A Blender!

*Please answer the question below based on the information from the chart*

	BLENDER A	BLENDER B
		
Description	Ninja X	Ninja Y
Manufacturer	EuroPro	EuroPro
Number of Speeds	5 Speeds	6 Speeds
Price	\$99.99	\$129.99

Which blender provides the best value for you? (*circle your answer*)

BLENDER A

BLENDER B

## Appendix SSSS

## Let's Buy A Blender!

*Please answer the question below based on the information from the chart*

	BLENDER A	BLENDER B	BLENDER C
			
Description	Ninja X	Ninja Y	Ninja Z
Manufacturer	EuroPro	EuroPro	EuroPro
Number of Speeds	4 Speeds	5 Speeds	6 Speeds
Price	\$69.99	\$99.99	\$129.99

Which blender provides the best value for you? (*circle your answer*)

BLENDER A

BLENDER B

BLENDER C

## Appendix TTTT

## Let's Buy A Blender!

*Please answer the question below based on the information from the chart*

	BLENDER A	BLENDER B	BLENDER C
			
Description	Ninja X	Ninja Y	Ninja Z
Manufacturer	EuroPro	EuroPro	EuroPro
Number of Speeds	4 Speeds	5 Speeds	6 Speeds
Price	\$69.99	\$99.99	\$129.99

Which blender provides the best value for you? (*circle your answer*)

BLENDER B

BLENDER C



## Appendix UUUU

## Let's Buy A Blender!

*Please answer the question below based on the information from the chart*

	BLENDER A	BLENDER B	BLENDER C
		 <b>SOLD OUT</b>	
Description	Ninja X	Ninja Y	Ninja Z
Manufacturer	EuroPro	EuroPro	EuroPro
Number of Speeds	4 Speeds	5 Speeds	6 Speeds
Price	\$69.99	\$99.99	\$129.99

Which blender provides the best value for you? (*circle your answer*)

BLENDER A

BLENDER C

## Appendix VVVV

## Let's Buy A Blender!

*Please answer the question below based on the information from the chart*

	BLENDER A	BLENDER B	BLENDER C
			 <b>SOLD OUT</b>
Description	Ninja X	Ninja Y	Ninja Z
Manufacturer	EuroPro	EuroPro	EuroPro
Number of Speeds	4 Speeds	5 Speeds	6 Speeds
Price	\$69.99	\$99.99	\$129.99

Which blender provides the best value for you? (*circle your answer*)

BLENDER A

BLENDER B

## Appendix WWWW

## Blender Survey

*Please answer the following statements by circling the number that best corresponds to how you feel about the statement for the Blender you have just chosen.*

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

1. I'm pretty sure I won't change my mind

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

2. I wish that I had more information when making my decision

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

3. I'm sure one of the products was more desirable to me than the other alternatives

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

4. My choice was easy to justify

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

5. I'm sure that I won't be disappointed in my choice

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

6. I'm certain about the performance of each alternative product

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

---

7. I feel confident that I have all the information necessary for my decision

0	1	2	3	4	5	6	7	8	9
<b>Strongly Disagree</b>							<b>Strongly Agree</b>		

## Appendix XXXX

## General Demographics

*Please answer the following questions by checking the option where applicable.*

1. What is your sex?

Male ☐

Female ☐

2. What is your age? \_\_\_\_\_

3. What is your relationship status?

Single ☐

Casually dating ☐

In a monogamous relationship ☐

Married ☐

4. How would you describe yourself? (Please check the one option that best describes you)

American Indian or Alaska Native ☐

Hawaiian or Other Pacific Islander ☐

Asian or Asian American ☐

Black or African American ☐

Hispanic or Latino ☐

White or European American ☐

Other \_\_\_\_\_

5. Do you currently have a job?

Yes

No

6. At what age did you first start working? \_\_\_\_\_

7. Estimated family income (if known)

< \$50,000 ☐

\$50,001- \$100,000 ☐

\$100,001 - \$150,000 ☐

\$150,001 - \$200,000 ☐

\$200,001 - \$250,000 ☐

> \$250,000 ☐

## Appendix YYYY

## Informed Consent

- I hereby consent to participate in Jeremy Wong's research study.
- I understand this research will involve participating in an experiment, as well as, completing three surveys.
- While I understand that the direct benefits of this research to society are not known, I have been told that I may learn more about consumer orientation.
- I understand that this survey will take about 30 minutes. I have been told that there are no known risks or discomforts related to participating in this research.
- I have been told that Jeremy Wong can be reached at [jwong1@conncoll.edu](mailto:jwong1@conncoll.edu).
- I understand that I may decline to answer any questions as I see fit, and that I may withdraw from the study without penalty at any time.
- I understand that no information or disclosed results will use my name or personal identity.
- I have been advised that I may contact the researcher who will answer any questions I may have about the purposes and procedures of this study.
- I understand that this study is not meant to gather information about specific individuals and that my responses will be combined with other participants' data for the purpose of statistical analyses.
- I consent to publication of the study results as long as the identity of all participants is protected. I understand that this research has been approved by the Connecticut College Human Subjects Institutional Review Board (IRB)

- Concerns about any aspect of this study may be addressed to Professor Ann Devlin, Chairperson of the Connecticut College IRB (860-439-2333) or

[Ann.Devlin@conncoll.edu](mailto:Ann.Devlin@conncoll.edu)

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I am at least 18 years of age, and I have read these explanations and assurances and voluntarily consent to participate in this research about consumer orientation.

Name (printed) \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

## Appendix ZZZZ

## Debriefing Form

First of all, thank you for completing my experiment and research surveys, as well as, participating in the study on consumer behavior. The compromise effect shows people will typically choose the middle option among an odd number of alternatives (three in the case of this study). I am studying how with a product that is sold out, preferences changes and the compromise effect is then weakened. I expect to find that if there are three products with the words “SOLD OUT” over the rightmost or leftmost product, people will gravitate more towards the middle option because the sold out product serves as an anchor or attraction. Research of this kind can be used to help further understand behavioral economics, the compromise effect, and market strategies. Although the compromise effect has been previously studied, there has been an addition in the experiment of keeping price, qualities consist and evenly spaced, and showing how a sold out option affects choices in market settings. Please do not share this information with your peers until the end of the semester when the study has been completed.

If you are interested in this topic and would like to read literature in this area, please contact Jeremy Wong: [jwong1@conncoll.edu](mailto:jwong1@conncoll.edu). Any concerns about the manner in which this research was conducted should be reported to Professor Ann Devlin, Chairperson of the Connecticut College IRB (860-439-2333) or [Ann.Devlin@conncoll.edu](mailto:Ann.Devlin@conncoll.edu)

Listed below of this sheet are two sources you may want to consult to learn more about this topic:

Simonson, I., & Tversky, A. (1992). Choice in context: Tradeoff contrast and extremeness aversion. *Journal of Marketing Research*, 29(3), 281-295. doi: 10.2307/3172740

Sheng, S., Parker, A. M., & Nakamoto, K. (2005). Understanding the mechanism and determinants of compromise effects. *Psychology and Marketing*, 22(7), 591–609.  
doi: 10.1002/mar.20075